PHILADELPHIA MEDICAL TIMES.

FRIDAY, DECEMBER 1, 1871.

ORIGINAL LECTURES.

CLINICAL LECTURE
ON TUMORS OF THE LARYNX IN CHILDREN.

BY WILLIAM PEPPER, M.D.,

Lecturer on Clinical Medicine in the University of Pennsylvania; Physician to the Philadelphia Hospital and the Children's Hospital.

(Concluded.)

ACTING, then, upon the belief that there was a laryngeal tumor present, I admitted the child to my ward in the Children's Hospital, with a view to the performance of tracheotomy. The child's strength had, however, begun to run down very rapidly, and her appetite had failed, although the degree of respiratory embarrassment seemed no greater than had existed for several weeks. A consultation of my colleagues was called, and it was unanimously determined to perform the operation after a short delay, during which the use of antispasmodics internally, and of mild sedative astringents locally by inhalation, was directed. The object of this latter treatment was to remove any element of spasm or of congestion of the larynx which might be present, in the hope that enough relief might be gained to enable the child's throat to become accustomed to the presence of a laryngeal mirror, so that, if possible, the removal of the growth might be effected through the mouth. Unfortunately, this delay proved fatal: the same night, without any apparent increase in the difficulty of breathing, the child's strength failed rapidly, the pulse became very feeble and frequent, and death occurred at seven o'clock the following morning. The immediate cause of death was a paroxysm of dyspnœa, upon the occurrence of which I was summoned to instantly perform laryngotomy, but arrived at the Hospital a few moments after life was extinct. The post-mortem examination was made on the following day; and while you examine the larynx, which I hand to you, I will read the notes of the morbid appearances made at the time:

The *larynx* was removed by separating the attachments of the hyoid bone. The epiglottis was of normal size and color; the aryteno-epiglottidean folds were slightly œdematous. Upon looking into the larynx from above, the glottis seemed entirely obstructed by a papillary growth: the experiment was not tried, but it seemed as though water would scarcely have trickled through the obstruction. The larynx was cut open along the median line of its posterior surface, so as to fully expose its cavity. The under surface of the epiglottis was healthy. The false cords were fringed by a row of low, warty growths. By far the greater portion of the tumor, however, sprang from the true cords. The left one was the seat of numerous little papillary bodies, most of which were $\frac{1}{4}'''$ to $\frac{1}{2}'''$ in diameter, and sessile; but one hung by a delicate though short pedicle, and had a head rather more than $1'''$ in diameter. The right cord was throughout its entire extent occupied by a growth, consisting of closely-apposed papillary or filiform bodies, together making a broad-based sessile mass, attached to $\frac{1}{3}$ of the circumference of the larynx, and projecting $\frac{1}{5}''$ into its cavity. This was the chief source of the obstruction. These growths were quite soft and friable, and, on being pushed or pressed, exuded a small amount of juice. The entire right cord was so thoroughly involved that it would have been completely destroyed in the removal of the growth; and the same was to a great extent true of the left cord. Below the vocal cords there were a number of minute elevations of the mucous membrane, which were evidently incipient warts. The growth was examined microscopically by Dr. William B. Corbit as well as myself, and we both found it to be composed of numerous large flat epithelial cells arranged in layers, and with one, or in some instances two, large nuclei. The cell-contents were finely granular. The tissue beneath these epithelial layers presented numerous spindle-shaped nucleated cells, and many of intermediate oval forms. There was a scanty fibrous stroma.

The trachea was perfectly healthy. The bronchi were also healthy. The glands along the right bronchus and at the bifurcation were considerably enlarged, and had undergone cheesy and calcareous degeneration: their capsules were greatly thickened and indurated. Despite their enlargement, they had not encroached at all upon the calibre of the bronchi or trachea.

Lungs.—The right lung was tightly bound by pleuritic adhesions. Its tissue was, however, quite healthy, save a very few small cheesy nodules, enveloped in a capsule of fibroid tissue. The left lung was free from adhesions, and entirely healthy.

The thymus gland was unusually large for a child of $3\frac{1}{2}$ years, weighing 10.22 grammes; its tissue was, however, healthy.

This account of the post-mortem appearances shows clearly how correct was the opinion expressed during life as to the cause of the obstruction to breathing. The growth which was found on the vocal cords presented all the characteristics of one of the most common forms of laryngeal tumors.

A number of varieties of these growths are described as occurring with more or less frequency. Of these, however, several kinds, as mucous polypi, myxomata, lipomata, and cystic tumors, have not as yet been observed in children, in whom the forms of papillary, epithelial, and fibrous growths (which are indeed the most frequent at all ages) include all the cases observed.

I shall give you a brief description of the appearances presented by each of these varieties, since, although the use of the laryngoscope in young children is fraught with many difficulties, we can occasionally get a satisfactory view of the vocal cords and interior of the larynx, and can then easily recognize the position, and even the character, of any growth that may be present.

The *fibrous polyp* is usually a single circumscribed oval or round tumor, pedunculated, or, more rarely, sessile, and due to a localized hyperplasia of the submucous connective tissue. Its surface is generally smooth and its color reddish. It is of very slow growth, and rarely attains a large size. When examined microscopically, it is found to present the ordinary structure of fibrous tumors, consisting of interlacing bundles of white fibres, and is usually invested by layers of epithelium.

Epithelial growths present on microscopic examination a structure entirely made up of tessellated epithelium. They are usually sessile, of small size, and of white or pale-red color.

Papillomata, to which class the growth found in the present case belongs, are by far the most frequent of all laryngeal tumors. They usually appear as a congeries of small condylomatous or warty excrescences, which may by aggregation attain a considerable size. Their color is usually pink, and the surface, which is irregular, may present a cauliflower, foliated, or mam-

millary character. Their structure presents on microscopic examination a basis of connective tissue invested by a series of superimposed layers of squamous epithelium.

The favorite positions for all of these growths are the true and false vocal cords, the bottom of the sinuses of Morgagni, and the base of the epiglottis: so that it is evident they can rarely attain any considerable size without inducing serious interference with respiration. The papillary and epithelial growths are usually sessile, but occasionally a fibrous polyp has so long a pedicle as to be quite movable, and thus hang down below the vocal cords or rise up into the cavity of the larynx, and thus avoid obstructing the glottis. In such a case, it is evident that the tumor might occasionally become engaged in the glottis, and thus give rise to paroxysms of suffocative dyspnœa, while in the intervals the respiration might be quite unobstructed. Such is apparently the explanation of some of the cases on record where there have been violent paroxysms of dyspnœa, with intervals of complete relief from all symptoms of obstruction. The rate of growth of all laryngeal tumors is slow. That of papillomata is more rapid than in the case of the other varieties, and Mackenzie ("Growths in the Larynx," 1871, p. 40) cites two cases, in one of which "two growths, placed symmetrically on the posterior part of the vocal cords, attained the size of split peas in less than three months; and in the other the growth reached the size of a raspberry in less than nine months." In many cases, however, the tumor slowly increases in size for several years before giving rise to urgent symptoms; and even after these growths have become so large as to cause aphonia and some degree of dyspnœa they may remain inactive for years.

Our knowledge of the *causes* which lead to the development of tumors in the larynx is very imperfect. It does not seem possible to establish any causal connection between the existence of either the tuberculous or syphilitic dyscrasia and the production of these growths; and it is probable that the causes all act by inducing chronic congestion or actual inflammation of the mucous membrane, and thus favoring the hyperplastic growth of the different elements of its tissue. Thus, there can be no doubt that one of the most fruitful causes is the inhalation of irritating gases or air loaded with dust; and hence we find that a large proportion of the patients suffering with laryngeal tumors follow occupations which expose them to this cause. It is also because men are so much more frequently engaged in these occupations that a large majority of the patients are of the male sex.

Another well-determined cause is the influence of certain acute specific diseases, and especially measles, smallpox, and scarlet fever, which are so frequently accompanied or followed by laryngitis. I believe, indeed, that it is chiefly by the frequency with which this class of diseases occur during childhood that we are to explain the comparatively frequent occurrence of laryngeal tumors in young children. The author of one of the most interesting memoirs on this subject (Causit, "Etudes sur les Polypes du Larynx," Paris, 1867) maintains that these growths are not rarely congenital; and though his table of cases cannot be said to establish this fact beyond doubt, it at least proves conclusively that they occur frequently in early infancy and childhood.

I have already detailed the symptoms which attend the presence of a tumor in the larynx, and will therefore only refer briefly to them in connection with the anatomical appearances I have been describing. The symptoms usually come on insidiously after the patient has presented evidences of chronic laryngeal congestion, but at other times they may appear more abruptly, —following some acute disease, as measles. Pain is scarcely ever complained of, and cough is rarely troublesome. In some cases, indeed, cough is entirely absent, while in others, especially when the tumor is seated near the glottis, it is croupy in character, and occurs in paroxysms of greater or less violence. The two characteristic symptoms are, however, modification of the voice and dyspnœa. Alteration of the voice is almost invariably present. It usually begins as mere dysphonia, but increases gradually until, in a majority of cases, there is complete aphonia. The degree of dysphonia does not merely depend upon the size of the tumor, but is influenced both by its position and its mode of attachment. Evidently a small sessile growth springing from the vocal cords will far more seriously impair vocalization than a much larger but pedunculated tumor attached so as to allow it to rise up into the cavity of the larynx or to fall below the vocal cords.

Dyspnœa is second in constancy only to alteration of the voice as a symptom of laryngeal tumor, and is present in a large majority of cases. It generally is first noticed as a slight difficulty of breathing, which gradually increases until there is in some cases extreme habitual dyspnœa. When this happens, inspiration is prolonged and stridulous, and is accompanied by recession of the base of the thorax and by deepening of the supra-sternal notch, while expiration is also long, though usually quiet and less labored. You will remember the explanation I gave of these phenomena, and the value which, as I told you, attaches to them as signs of mechanical obstruction of the air-passages.

The degree of persistent, habitual dyspnœa depends of course upon the degree of actual obstruction of the larynx, and in many cases never reaches the extreme stage I have described. Whether, however, it is less or greater, there are nearly always paroxysmal exacerbations, which arise from trifling causes, such as slight congestion and swelling of the mucous membrane, or spasm of the muscles of the larynx. These attacks begin by being of moderate severity and occurring at long intervals, and usually grow progressively more frequent and violent, until they threaten to induce fatal suffocation. Indeed, when death occurs as the result of laryngeal tumor, it generally takes place during one of these paroxysms. You see, then, that the two symptoms which are most characteristic of the presence of a laryngeal tumor are alteration of voice and dyspnœa, and, when it is impossible to make a laryngoscopic examination, it is necessary to depend in making a diagnosis upon a critical study of the mode of development and precise characters of these phenomena.

It is not my intention to go into any detailed account of the treatment necessary in cases of tumors of the larynx. The only object to be gained by internal medication is to allay spasm when this is troublesome and induces severe paroxysms of dyspnœa. The methods of treatment which are absolutely necessary are surgical in character, and consist either in the destruction of the growth by caustics, or its removal by instruments. Statistics give an unquestionable preference to the latter mode of procedure; and I know of no more brilliant achievements of surgery than the results obtained by laryngoscopists in the removal of these growths. For the details of the operations and minute description of the instruments to be employed, I must refer you to other sources, and especially to Mackenzie's latest work on Growths in the Larynx, and to Holmes' excellent book on the Surgical Diseases of Children.

There are, however, a few considerations of a practical nature that I wish to impress upon you. It seems clear to me that, whenever it is possible to familiarize the patient to the operation, it is far better to remove the tumor by operating through the mouth than to perform tracheotomy. Thus, in the great majority of cases

in adults, the removal can be effected with complete success and entire safety in this manner. Nor must you be deterred by the extreme youth of any patient from making repeated and persevering attempts to familiarize the throat to the presence of laryngoscopic instruments, so that, if possible, an accurate examination may be made and the growth removed *per vias naturales*.

The fact that such a result is possible is proved by several successful operations at the ages of four, five, and six years. It must not be forgotten, however, that there is a strong tendency in children to spasmodic exacerbations of the dyspnœa, which may induce death; and I would therefore urge you, during the treatment preparatory to operating through the mouth, to have the child constantly watched by some one capable of performing tracheotomy and thus affording immediate relief if dangerous symptoms of suffocation should appear. Of course, also, if the patient does not come under your care until there is an extreme degree of habitual dyspnœa, it is impossible to wait until the fauces are educated to bear the presence of a laryngeal mirror, and tracheotomy must be performed, and the tumor removed at some subsequent period, either through the mouth or through the tracheal opening. It is chiefly, however, in such cases as the one I have reported to you, where laryngoscopy was impossible, that the great difficulties of treating laryngeal tumors in children are manifest. I have tried to point out to you the manner in which, by a careful consideration of the symptoms, we may arrive at an accurate diagnosis. If, then, the symptoms are not urgent, the degree of habitual dyspnœa slight, and the paroxysmal exacerbations infrequent and moderate in severity, we should postpone active treatment, hoping that the symptoms may not become urgent until the child grows old enough to admit of laryngoscopic examination and operation. Mere aphonia, however complete, scarcely justifies the performance of so serious an operation as tracheotomy; but if dyspnœa grows progressively more and more severe, and the paroxysms more alarming, the operation should be unhesitatingly performed, even though the diagnosis rests only upon the general considerations I have discussed before you. The operation itself is a serious and difficult one, but in the hands of a skilful operator will generally terminate in the successful removal of the tumor and the relief of dyspnœa; but, unfortunately, it has happened in a large proportion of such cases that the patient has remained completely aphonic, or that the restoration of voice was very imperfect.

ORIGINAL COMMUNICATIONS.

OSTEOLOGICAL NOTES.

BY HARRISON ALLEN, M.D.,

Professor of Comparative Anatomy in the University of Pennsylvania.

The Base of the Skull.

THE base of the skull, as defined by the anatomist, is a much more extensive region than that proposed by the surgeon. The former includes the entire inferior aspect of the brain-case and face, as opposed to the vertex and sides; the latter limits the "base of the skull" to a space almost synonymous with the roof of the pharynx. When a tumor is said to have its origin at the base of the skull, that portion of the anatomical base immediately above the pharynx is indicated. A description of a fracture which extends through the base of the skull implies, not necessarily, but frequently, a lesion to the petrous portion of the temporal bone and the basilar axis. On the other hand, injuries or diseases occurring posterior to the foramen magnum are included in the region of the neck,—those anterior to it, in that of the face. So that, in speaking of the framework of the "base" from an anatomico-surgical standpoint, I will confine my remarks, if not to the roof of the pharynx, at least to the exclusion of the post-atlal space and the base of the temporal bone beyond the sulcus for the inferior portion of the Eustachian tube.

As thus limited, the "base" (regio gutturalis) is composed of three regions,—a central and two lateral,—the depression between these being occupied during life with fibro-cartilage.

Lateral regions.—Each lateral region is bounded *externally* by a line running along the inner margin of the glenoid cavity, to the outer margin of the carotid foramen and the inner margin of the jugular foramen. In those rare examples of union of the outer plate of the pterygoid process with the spinous process of the sphenoid bone, the outer limit of the lateral region is suggested by producing the line of the pterygoid process posteriorly towards the outer margin of the body of the sphenoid and the basilar process of the occipital bone. Examination of this region reveals three distinct portions, which may be called *otic*, *carotid*, and *Eustachian* or *tubal*.

The *otic* portion corresponds to that part of the petrous portion of the temporal bone containing the labyrinth. The greater portion of it forms the anterior wall of the petro-occipital groove ("die Sulcus an der unteren Fläche des Felsenbeines,"—Gruber). It is defined anteriorly and internally by the foramen lacerum medium, and posteriorly and externally by the jugular foramen. In size it is inconstant, but often small and wedged up towards the occipital bone. Occasionally minute ossicles are developed between it and the side of the basilar process of the occipital bone.

The *carotid* portion is defined anteriorly and internally by the foramen lacerum medium; externally and posteriorly by the carotid canal. Though often ridged and irregular, this portion may be, as is frequently the case with the negro, broad and concave. Crossing it from before backwards is a continuation of the vaginal process, which may now be called the *tympanic process*, to indicate its origin, in common with the vaginal process, from the *pars tympanica*. This terminates abruptly on a level with the commencement of the groove for the Eustachian tube. This process rarely extends backwards, to lie almost in contact with the occipital bone.

The *Eustachian* or *tubal* portion accommodates the cartilaginous (inferior) section of the Eustachian tube. Its inner extremity comes in contact with the sphenoidal tongue, while its outer is defined in front by the spinous process above named. In broad high skulls, with well-arched bases, the Eustachian portion may be imperfect; instead of its inner extremity reaching the sphenoid bone, it may fail in accomplishing this by a distance of some two or three lines. With the narrow low head, such as that of the negro, it almost invariably corresponds to the above description.

A probe placed so as to connect the mastoid process with the base of the internal pterygoid plate will lie along the vaginal process and the base of the styloid, and will nearly correspond to the axis of the Eustachian groove. It divides the base of the temporal bone into two natural portions: the parts in front of the probe are facial,—that is, have their relations with the face; those behind it are pharyngeal, or, more properly speaking, have their relations with parts other than facial. It is to this line and the parts about it that I would invite

particular attention. I have found in well-marked mature skulls of the Asiatic, European, and American races a decided tendency towards development of the spinous process into a large, broad, and often jagged prominence, which extends beyond the spheno-temporal suture to impinge upon the carotid portion of the temporal bone. It at times crosses the freely-produced inner extremity of the temporal vaginal process, to make an X-like figure; in many cases it equals the latter process in size, and in a decided majority excels it. In the skull of the adult negro an opposite tendency is seen in the end of the vaginal process (near the origin of the transversely-placed "tympanic" process), presenting forwards and downwards a thin, rarely robust, pointed or hatchet-shaped edge. Not infrequently the spinous process is with such specimens inconspicuous, even when comparatively well developed, and is never of the blunt, knobbed, and massive appearance seen in the same process as met with in the skull of the Malay. The following table will illustrate these distinctions:

	Negro.	Hindoo.	Malay.
End of the vaginal process longer than the spinous	61	7	1
End of the vaginal process shorter than the spinous	11	21	26
Processes of about equal length	13	13	10
	85	41	37

It will be remembered that during the trial of Webster for the murder of Parkman, in 1850, a table of fragments of the skeleton of the murdered man, as identified by Prof. Wyman, was read in court. Among the items therein enumerated were "petrous portion of left side, jugular fossa, carotid canal, and fenestra ovalis," with "base of the right great wing of the "sphenoid with foramen rotundum and foramen ovale, sphenoidal sinus, Vidian canal suture." Nothing is said of the spinous or vaginal processes; they were probably mutilated or absent. It would be well hereafter in examining fragments of human crania to observe the relations in size of the processes last named. Should the inner edge of the vaginal process be found prominent and longer than the spinous, the *probability* would be that the remains were those of a negro. Conversely, if the spinous process were larger than the vaginal, or if the produced extremity of the latter were absent, the chances would be that the remains were *not* those of a negro. This would be proving little, it is true, but more than could be secured from any other fragments of the same size, and quite as much as from any single character.*

Central region.—The central region is bounded anteriorly by the posterior nares, posteriorly by the anterior edge of the foramen magnum, and laterally by the temporo-basilar depressions. Like the lateral regions, it is divisible into three portions,—anterior, middle, and posterior,—which are limited by transverse lines, as follows:

The *anterior*, confined to the body of the sphenoid bone, lies between a line (occipito-sphenoidal junction) joining the bases of the sphenoid tongues (sphenoidal-vaginal process of Henle) and the ellipse of the posterior nares. The surface includes two concavities, with the median articular surface and alæ of the vomer.

Vomerine crest.—A small but noticeable crest placed on either side of the vomer—serving to define the narial ellipse superiorly—fixes the point where the pharyngeal mucous membrane is continuous with that of the nose. Minute as is this crest, it is not without interest. It is not mentioned in the text-books, though often found in the skulls of the adult and senile conditions, while, as already mentioned, it gives a good character, limiting the base of the skull from the cavity of the nose. In specimen No. 28 (College of Physicians) the sphenoidal tongues and the base of the vomer show evidences of ostitis, the intervening parts being healthy. When ridged and extending outwards, so as to rest upon the sphenoidal process of the palatal bone, the vomerine crest may well be said to be hypertrophied. This I have noticed in several examples of syphilitic ostitis; and in one striking specimen of a senile skull in the Morton Cabinet (No. 1007), not only is the crest prominent and furnished with numerous dendritiform processes, but the palatal bone, at a point corresponding to the line of the lower ethmoidal scroll, is marked with a patch of a similar outgrowth.

The *middle* portion is limited to that part of the basi-occipital process in advance of the muscular impressions, and corresponds to the pharyngeal portion of the base. It is, as a rule, smoothish, and rarely presents a central, minute, circular depression, which may be the remains of the large follicle at the roof of the pharynx, which, according to Luschka, is occasionally accommodated within the cancelli of the basilar process. The inclination of the plane of the basilar process presents two varieties,—the inclined and the horizontal. The former may join the body of the sphenoid *above* its inferior surface, so that an abrupt concavity or transverse notch is formed at the spheno-basilar junction. In but one specimen from among the five hundred or more skulls I have examined is there any evidence of the remains of the early obliterated occipito-basilar articulation. As a rule, a faint transverse ridge is always present at this point. The lateral margins of the middle portion are roughened. These are vertical, as a rule, though occasionally oblique from below upwards and within outwards.

The *posterior* portion is that part of the basilar process between the pharyngeal spine and the foramen magnum. It is marked with the depression of the anterior cervical muscles, and receives at the sides the anterior condyloid foramina. This portion is rarely the subject of osteo-porosis. (See specimen No. 29, College of Physicians, and 1007, Morton Cabinet.)

I think any candid observer, after comparing a series of crania, will agree with me that the divisions here proposed are neither forced nor trifling. The *anterior* portion corresponds to the position of the body of the sphenoid bone, is immediately above the soft palate, and finds its complement in the Eustachian portion of each lateral region, since the orifice of the Eustachian tube of either side opens upon the anterior central portion. The physiological relations of this region are almost entirely with the face. The *middle* portion of the central region is limited to an intra-pharyngeal section of the basilar process, while the *posterior* pertains to its post-pharyngeal portion.

The roof of the pharynx, as seen with the rhinoscope, is the surgical "base of the skull." It includes the anterior and middle thirds of the central region, and is circumscribed by the superior constrictor muscle. The supra-pharyngeal aponeurosis extends along the boundaries to the orifices of the Eustachian tubes,—the superior constrictor, as is well known, not forming here a connection with the base. The surgical base is thus seen to be narrowed to a comparatively small area. Observation tends to show that extra-pharyngeal tumors rarely take their origin directly from it, though that such may be the case may be inferred from descriptions. A moment's reflection is conclusive that a tumor growing downwards and forwards would soon impinge upon the septum of the nose. But, in point of fact, it does not so incline, but early intrudes upon one or the other of the cavities of the nose. Indeed, a careful examination of the longitudinal section of the head will make it appear probable that a tumor origi-

*Among the noteworthy exceptions to the above distinction, see specimen No. 247 Wistar and Horner Museum, and specimen No. 1 Museum of College of Physicians.

nating from the body of the sphenoid bone will occupy the sinus, and, extending thence, will be more apt to appear within the nose, or even enter the brain-case than the pharynx. The mucous membrane of the pharynx has no nutritive connection with the sphenoidal or occipital bones; that within the sphenoidal sinus has, *per contra*, as exact a relation with the bone as that of the maxillary sinus has with the superior maxilla. The lowly-organized aponeurotic tissues along the *sides* of the pharyngeal roof have, however, intimate relations with the pharynx and the *sides* of the "base of the skull." It is here most probably that naso-pharyngeal tumors, as a rule, originate. Prior to an operation, a tumor may appear to be pendent from the central region of the base, which will afterwards prove to have had a connection with one of the lateral regions. Dr. D. W. Cheever (*Boston Medical and Surgical Journal*, N. S., ii. p. 406) mentions the case of a young man aged 19 years, who submitted to a second operation, after an interval of six months, for the removal of a fibroid naso-pharyngeal polypus, so called. The note taken before the operation describes the tumor attached "at the base of the sphenoid bone and to the upper and back part of the pharynx." At the time of the operation, however, it is described as "attached to the base of the sphenoid, and to the upper, posterior, and *right* side of pharynx."

The foramen lacerum medium.—The size of the foramen lacerum medium is, together with the pars tympanica, a feature of the base of the skull worthy of more than a passing notice.

According to Gruber, the older Continental writers, including such authorities as Meckel and Weber, are apparently so little impressed with the importance or constancy of the foramen in question that they say nothing about it. They indeed speak of a lacerated foramen, thereby meaning the *posterior* lacerated foramen; no name is assigned the *median*, while the *anterior* is denominated the sphenoidal foramen. Arnold, following these anatomists, gives the title *petro-basilar fissure* to the *median*. Henle and Hyrtl virtually accept this method. The French authors mention an anterior lacerated foramen, which is the same as our sphenoidal foramen, and accept the posterior lacerated foramen, while denoting the median as the *orificium internum canalis carotici*. Gruber elaborates four foramina: first, *f. sphenoidalis*; second, *f. lac. ant. int.* (the orifice of the median foramen seen from within the brain-case); third, *f. lac. ant. ext.* (the orifice of the same foramen seen from below,—*i.e.* the "base of the skull;" fourth, the *for. lac. post.*)

It would appear from the above that the *petro-basilar fissure*, the *orificium canalis carotici*, and the two divisions of Gruber are all synonyms with the *median lacerated foramen* of the English text-books.

Why this confusion of terms? I believe it to be due to the fact that the foramen varies in size with the general shape of the skull, upon which, indeed, it is dependent. Thus the foramen is smaller in a long-faced slender head than in a short-faced broad one. It is necessary to exclude here skulls elongated by synostosis.

An examination of eighty negro skulls, which, as is well known, belong to the former group, showed an almost invariable contraction of this foramen. In eleven of this number it was absent,—the apex of the petrous portion of the temporal bone fitting closely to the sphenoid bone and the basilar process. With skulls of the short-faced races, such as the Malay and the Chinese, the foramen was nearly always ample.

Hilton believes that the petrous portion of the temporal bone is an important agent in determining the shape of the face, and adduces in support of his position the changes which take place in the direction of the petrous bone from the immature to the adult condition. In the child the bones are more transversely placed than in the adult, with whom the angles of their produced axes would be acute, and lie far in advance of the *foramina lacera media*. Without accepting this view as correct, since Mr. Hilton's position is not one against which exception may not be taken, it is certainly suggestive that in prognathic skulls the petrous portion of the temporal bone is apt to be narrow and triangular, and tends to press against the body of the sphenoid, as is the case in the quadrumana and quadrupeds generally: whereas in the orthognathic heads the ample foramen is associated with a broad irregular base, often permitting the carotid groove of the sphenoid bone to be visible from beneath. When the foramen is very open, the sphenoid bone sends forward across the opening a curious Y-shaped process, for the purpose of supporting the carotid artery in its ascent to the brain-case. In specimen No. 29 (College of Physicians) this process is blunted, and, passing through the foramen, appears upon the base of the skull between the right lateral and middle central portions.

CALCIFIED LOBULES OF THE LUNG.

BY W. C. KLOMAN, M.D.,

Baltimore, Md.

CASES of phthisis are occasionally met with where, besides the usual sputa, the patient at various times expectorates numerous calcareous concretions, of an elongated, irregular form, and with surfaces more or less nodulated. They vary in size, some being scarcely one or two lines long, others being one-fourth of an inch in length. I have no doubt that every one who has observed cases of phthisis is familiar with the appearance of these concretions, but I do doubt whether it is as generally known that they are themselves lobuli of the lung, which have undergone the cheesy metamorphosis and have afterwards become calcified.

My attention was first called to this by the statement of Prof. Rindfleisch, of Bonn, in his work on Pathological Histology, in which he asserts that, by macerating these bodies (which are known by the several names of calcareous concretions, pulmonary calculi, or lung-stones) in dilute hydrochloric acid, the remains of lung-parenchyma can be shown under the microscope.

Some of these calculi having recently been brought to me for examination by a friend who has a case of this kind—phthisis calculosa—under his care, I macerated one of them in dilute hydrochloric acid until the salts of lime were entirely removed. Minute bubbles of gas being disengaged in this process, proved the presence of the carbonate of lime. I did not test for the presence of the phosphate of lime, although I have no doubt it was also present. After having lain in the acid until it was perfectly soft, the calculus still retained the same shape and size it had before maceration. I next proceeded to make a thin section, and submitted it to microscopic examination. I found the distinct remains of lung-tissue,—*i.e.* septa of the alveoli, yellow elastic fibres, lung-pigment, granular débris, tablets of cholesterine, etc. The two last mentioned are evidences of the previous caseous metamorphosis, being the remains of the cellular elements, which have been entirely broken up, while the fibrous tissue has resisted the destructive tendency and is preserved.

The process by which these concretions are formed may be briefly stated as follows: According to the doctrines of modern pathology, tubercle is the result of an infection from a depot of caseous material situated at some point in the body, which is the result and remains of a previous inflammation, or from some

caseous material introduced into the body from without. Minute particles of this material are conveyed by the lymphatics, and cause the deposition of miliary tubercles in the perivascular lymph-spaces surrounding minute arteries, into adenoid tissue wherever found, or into mucous membranes. When thus deposited,—say around an arteriole supplying a lobule of the lung,—the tendency of the tubercles is gradually to close the lumen of the vessel, and thus to diminish the supply of nutriment. The tubercles deposited at the same time in the walls of the alveoli effect a thickening of them and slowly encroach upon their lumen, which is further diminished by an increase of secretion, the result of a reactive inflammation,—a catarrhal pneumonia, excited by the presence of the tubercles. Numerous young cells, of low vitality and of a perishable nature, are thrown off, and mutually compress one another. There being then a diminution of the supply of nutriment, together with an increased number of cells to be nourished,—which latter at the same time crowd and compress each other,—the result is fatty degeneration. If the vessels are entirely obstructed and nutrition ceases, the part affected softens, the cellular elements break down, the fluid of softening reaches the surface of some adjacent bronchus by ulceration, and is eventually expectorated. If, however, the circulation of the nutritive juices is not completely cut off, but is only retarded, this fatty degeneration and softening is arrested; the more fluid portions are absorbed; what remains behind becomes more and more inspissated, and undergoes the cheesy metamorphosis. Into this the salts of lime, the carbonate and phosphate, are gradually deposited, and by this means all further metamorphosis is rendered impossible. The parts so calcified remain unchanged and quiescent, until they excite a separating inflammation in their surroundings, by which they are loosened from their connections and cast out with the sputa whenever a bronchus of a calibre sufficiently large for their passage has been opened.

The so-called "bronchial stones" must not be mistaken for and confounded with the true calcified lobules of the lung. The former are occasionally found in lungs affected with chronic bronchial catarrhs, and consist only of muco-purulent secretion which from any cause is retained in the bronchus and obstructs it. This gradually inspissates and undergoes the cheesy metamorphosis, with the subsequent deposition of the salts of lime, the sequence of changes being the same as in the former case.

SCIRRHUS OF THE HEAD OF THE PANCREAS.

BY W. H. WEBB, M.D.,

Philadelphia, Pa.

CANCER of the pancreas is comparatively a rare disease, and especially rare is primary cancer. In the case which I am about to record, the malignant growth was strictly limited to the organ, and was discernible during life.

Samuel E., sixty years of age, a blacksmith by occupation, and without hereditary tendency to disease, as far as could be ascertained, began to complain, about eighteen months ago, of being easily fatigued and of an occasional feeling of soreness in the epigastric and right hypochondriac regions. Being a man of strictly abstemious habits, he was at a loss to account for the "pain and wretchedness" from which he now and then suffered. This condition continued until the 12th of January, 1871, when, owing to increased pain and debility, he was obliged to give up his work and seek medical advice. He stated that when he abandoned his occupation he was jaundiced, but that this condition varied in its degree, being at times more intense than at others. The bowels were occasionally loose, which he attributed to "strong food," but on a restricted diet they became more regular. He had also been troubled with nausea, and had vomited several times during the early part of his illness.

On the 25th of June, when I first saw the patient, I found him to be slightly jaundiced, with a haggard face and expression indicative of severe suffering from some serious chronic disease. The tongue was slightly coated with a whitish fur; the pulse 90, full, but feeble; the hands and feet cold; the skin dry and harsh; the appetite impaired; and the bowels inclined to be constipated.

He complained of great weakness, loss of flesh, and a burning in the back and epigastrium, which was very severe at times, and accompanied by sharp, shooting pains, occurring from two to six times during the twenty-four hours. The most prominent symptom, however, was a peculiar gnawing sensation in the back, opposite to the eighth dorsal vertebra. On examination of the abdomen while the patient was in a recumbent posture, a hard, solid, resisting tumor was felt about one inch and a half to the right of the median line, and about two inches above the umbilicus. It was very sensitive to the touch, immovable, without murmur, and limited in size. I felt confident from its location that it was connected with the pancreas, and, from the appearance and condition of the man, that it was of a carcinomatous nature. In order to confirm the diagnosis, I sought a consultation with Dr. Da Costa, who, upon a careful examination, pronounced it to be scirrhus of the head of the pancreas.

On the 3d of July, fatty food was used as a test, and the result was fatty stools; and this experiment was again resorted to two weeks later, with a similar result.

During the period that I attended him, he had no return of the vomiting, and only slight jaundice. A peculiarity quite noticeable was the position of his body, which, on either standing or sitting, was slightly inclined forward, and he seemed more at ease when erect than when recumbent.

September 18.—The patient has been comparatively free from pain for the past three days; the pulse 80, feeble, and easily compressible; articulation difficult. Death ensued from exhaustion on the following afternoon.

Autopsy, twenty hours after death.—No cadaveric rigidity; emaciation extreme. Abdomen only inspected. Between the viscera were extensive adhesions, some of which were quite recent and easily broken up, while those around the tumor were tough and required the use of the scalpel for their division.

The lesser end and body of the pancreas were unaltered, but the head was of twice the normal size. The descending portion and part of the transverse portion of the duodenum were adherent to the outer surface of the tumor, and a band of lymph about two lines in thickness extended transversely across the middle of the duodenum from before backwards, and was attached at each end of the tumor. The exterior portion of the growth was of cartilaginous hardness, while the interior was soft and lacerable. The gall-bladder was full, but not distended, and free from concretions. The splenic artery was not affected. The ductus communis choledochus was but little compressed. On microscopic examination of the structure of the tumor it was found to be that of scirrhus.

ALBUMINURIA IN SMALLPOX. — The *Lyon Médicale* of September 3 (*Lancet*, October 21, 1871) has published several cases of variola in which this complication was noted, with these deductions: 1. Albuminuria has been noticed in confluent smallpox in about one case in five. 2. Albuminuria is most frequently only temporary, and does not interfere with the progress of smallpox. When permanent, it may bring on the mischief wrought by Bright's disease. 3. Even when transitory, albuminuria may give rise to severe symptoms, as eclampsia. 4. In hemorrhagic smallpox, albuminuria is persistent, whether connected with a lesion of the kidney, whether it depends upon contamination of the blood, or be owing to a combination of both phenomena.

NOTES OF HOSPITAL PRACTICE.

UNIVERSITY OF PENNSYLVANIA.

CLINIC OF PROF. AGNEW, SEPTEMBER 13, 1871.

Reported by Dr. Elliott Richardson.

COMPOUND FRACTURE OF FINGERS.

THE subject of this injury, a man aged 26 years, four days previous to his presentation at clinic had the second and third phalanges of the index and middle fingers of the right hand so badly mutilated by contact with a rapidly-revolving fly-wheel, that death of these portions followed. The lecturer said amputation of parts of the injured members would be necessary. He would remove the middle finger at the metacarpo-phalangeal articulation, as the retention of any portion of the first phalanx of any finger except the index, where amputation so high is rendered necessary, is rather detrimental to the usefulness of the hand than otherwise, for, the points of insertion of the tendons of the flexors and extensors of the finger being removed, the mutilated member will not accompany the other fingers in their movements, but will remain stationary, or nearly so, and will often be found in the way in many occupations of life. Indeed, it has been advised by many operators to remove the head of the contiguous metacarpal bone, with a view of allowing room for the approximation of the metacarpal bones of the adjacent fingers, by which the unsightly gap, otherwise prominent, will ultimately be obliterated. This proceeding is only justifiable, however, in those who value symmetry above utility, and is not adapted to those who are obliged to earn a livelihood by manual labor, in whom it is best to preserve the palm of the hand as nearly as possible in its original dimensions. With regard to the index-finger, a totally different rule applies.

Here the advantages of preserving a prominence which can be brought into apposition with the thumb are very great. Hence the rule in amputations of the index-finger is to save all that is possible. Ether was then administered, and the middle finger removed at the metacarpo-phalangeal articulation by the oval-flap method.

Amputation of the index-finger was performed in the lower third of the first phalanx by lateral flaps. The arteries of the part being somewhat enlarged, it was found necessary to ligate two of them. The sides of the oval flap were then approximated by one silver suture and adhesive strips; the lateral flaps by adhesive strips alone, lightly applied, so as to avoid pressure over the end of the bone. Dilute tincture of opium was then used as a dressing, and the arm bound upon a straight palmar splint. In cases of amputation so near the metacarpal bones there is a great tendency to the subsequent formation of palmar abscesses, but, Prof. Agnew said, by arranging the dressing so that moderate pressure would be made at the base of the fingers on the palmar surface, burrowing might be prevented.

October 9.—The patient has not done so well as was hoped. On the third day after operation the dressings were removed, when the stump of the middle finger was found to have progressed favorably, but gangrene of the flaps of the index-finger had occurred, rendering amputation of the remainder of the first phalanx necessary. This was performed eight days later. The patient has since then done very well, and at this date is practically well.

CHRONIC ABSCESS OF THE BUTTOCK.

This man was 25 years of age, was somewhat emaciated, and evidently broken down in health. He had suffered from pain in the gluteal region of the right side for seven years past, and nearly a year ago noticed swelling in the right buttock. The swelling at the time of his presentation at clinic was deeply situated in the region of the posterior superior spinous process of the ilium, and was about the size of an egg, though not very sharply defined. It was the seat of much pain, which extended from it down the limb in the course of the branches of the sciatic nerve. There was some tenderness on pressure, but no great amount of heat in the part, nor any decided discoloration.

Prof. Agnew said that from these symptoms, taken in connection with the facts that there was no pulsation in the tumor, that it was not situated in the line of any large artery, but was in a region where muscular resistance was slight, that the patient's appearance indicated a depraved condition of health, and that there was in the axilla a chronic abscess which had existed for the past eight months, he should conclude that this growth was also a chronic abscess, and should direct treatment accordingly.

It was usual, he said, in cases of this character to avoid operative interference as long as possible, unless by pressure upon important parts of the body, or extensive burrowing, danger would be incurred by delay. As there was no urgent cause of this character existing in the case, the patient was advised for the present simply to attend to the improvement of his general health by the use of tonics.

NECROSIS OF TARSUS.

The patient was a pale, thin boy of nine years, with light complexion and hair. He had enlarged lymphatic glands in different parts of the body, and presented other evidences of scrofulous diathesis. Fifteen months ago he fell, injuring his right ankle. This injury was followed by pain, swelling, and, finally, suppuration, first pointing on the inner, then on the outer, side of the ankle.

These abscesses had opened subsequently at these two points. When presented at clinic there was much swelling in the neighborhood of the ankle. He had on the outer side of it an opening, scarcely papular in character, situated a little above and in advance of the external malleolus, which discharged but little, and, on the introduction of a probe, was found to extend a distance of an inch or two obliquely downwards, but did not appear to communicate at this time with any osseous structure. Situated on the inner side of the foot, on a line with the internal malleolus and a little in advance of it, was an ulcerated surface of about one inch in diameter, near the centre of which was a fistulous opening. Prof. Agnew introduced a probe at this opening, which passed down without difficulty until it came in contact with denuded and necrosed bone; this he thought was the scaphoid. The lecturer then alluded to the obstinate character of joint-injuries due to the presence of a synovial membrane and the large amount of cancellated osseous structure existing in their vicinity. He also referred to the influence of inherited or acquired constitutional diseases in rendering these injuries more serious, which was well illustrated in this case, where a strumous diathesis was so plainly evident. Prof. Agnew said he thought no operation justifiable in this case. He had seen cases of this character recover without operative interference, and he believed that by placing the patient under judicious treatment the necrosed bone would in time separate and be discharged from the opening,—that the latter would then close and recovery follow.

He directed the limb to be placed in a nicely-fitting binders'-board splint, extending from below the knee to the toe, covering in the heel and one side of the ankle, and leaving exposed the ulcerated surface, which should be dressed with simple cerate or other mild application.

The patient was enjoined to scrupulously avoid using the foot in walking, but was permitted to go about on crutches.

Three weeks after this treatment had been adopted, a decided improvement had taken place. The ulcerated surface had healed, leaving only a fistulous opening. Swelling had diminished considerably, and the patient was suffering much less pain. Several small fragments of bone had come away during that period.

NECROSIS OF FEMUR.

This case was reported in the *Times* for August 1 of the present year. Since his previous visit to us in June last, he had been working moderately without much inconvenience. Several fragments of necrosed bone had come away since that time, and the usefulness of the limb had much improved. Pain, however, still continued whenever the limb was brought into action. A probe was introduced, and the sequestrum still felt at a considerable depth from the surface. Prof.

Agnew directed the man to continue using moderate exercise, but if in the course of eight or ten weeks the pain should become so severe as to seriously interfere with his occupation, an operation for the removal of the sequestrum would be advised.

CLINIC FOR DISEASES OF THE SKIN, NOVEMBER 1, 1871.

SERVICE OF DR. LOUIS A. DUHRING.

Reported by Dr. Arthur Van Harlingen.

PHTHEIRIASIS AND LOCALIZED ECZEMA.

J. B. is a German, aged 50. He comes before the class to-day for the first time, complaining of an eruption on his head, accompanied by constant itching over the whole scalp. It annoys him most at night, after his head becomes warm on the pillow; at such times it seems almost unbearable.

He has been troubled in this way for the past five years. He has himself never suspected the real cause of his troubles, but if you will examine his head as he walks around the amphitheatre, you will not be long in finding it out. You will observe that his head is literally swarming with pediculi, which may be seen running up and down the shafts of the hairs or hiding among their roots. The irritation caused by the bites of these insects has driven him to scratch and tear his scalp with his finger-nails, until, as you see, it has become covered with excoriations. All the discomfort which this man endures is due to the presence of pediculi. Of these parasites three species exist and have been described. The *Pediculus capitis*, as its name indicates, is confined to the head,—rarely descending below the neck. It is sufficiently large to be discerned with ease by the naked eye. The *Pediculus corporis*, or *P. vestimentorum*, inhabits the clothing, from which it makes predatory excursions upon the skin, covering the trunk and lower extremities.

Its hooked claws enable it to instantly grasp any object with which it may chance to be thrown in contact, and it clings particularly to woollen clothing. In searching for this species of louse, I advise you to look with great care along each seam of the woollen under-garments, as otherwise the presence of these insects may easily be overlooked.

The third variety is the *Pediculus pubis*. Rather smaller and of a more circular shape than the two former, this species of pediculus is usually found clinging to the hairs over the pubes and genitalia, and sometimes in the axilla.

Phtheiriasis, the disease to which these insects give rise, is by no means confined to the filthy and degraded. Experience has shown that no class is exempt, for we frequently find it among people of the best social position and among those who are scrupulously neat in their habits.

This man was very much surprised when I told him what was the matter with him. He had had no suspicion of the presence of these parasites, and could scarcely believe my assertion. You will often find that your patients who may be afflicted in this way will be very much surprised when you tell them the real state of the case, for the disease may go on for years without the cause being suspected, and treated as pruritis, or even prurigo.

Now, having made our diagnosis, the first thing we want to do is to kill the pediculi, and then get rid of them. To this end I shall direct the patient to rub thoroughly into his head to-night a quantity of coal-oil sufficient to soak each individual hair. As his hair is rather thin, a teacupful will probably be enough, but a sufficient quantity should in any case be used to saturate the whole head, so that each pediculus may get the full benefit of it. After this application he will cover his head with a flannel cap, made for the purpose, which he will keep on until to-morrow morning; then he will wash his head thoroughly with Castile soap and warm water.

The coal-oil is to be rubbed into the head to-night in the manner I have described, and to-morrow he will present himself for inspection, that we may see whether the remedy has been efficiently applied. Coal-oil, you will find, is not only the cheapest, but also one of the most effectual, parasiticides you can use. It can be found everywhere,—is cheap and easy of application. It can have no injurious effect whatever on the hairs; but you must remember to tell your patients to beware of going near a light after making the application.

If you will examine the hairs themselves in this case, you will see attached to many of them—seldom near the skin, but more generally towards the free ends—one or more small pearly points. These are the nits or ova of the pediculus, and, unless they are killed and gotten rid of, our parasiticide will be of no avail, for in a few days they will hatch out, and the patient's head will again be swarming with a new crop of insects.

The best method of removing the nits is by alkaline washes and a fine-toothed comb. It often happens that after we think they are entirely gone, the lapse of a few days will find them again quite numerous. The only thing to do in this case is to persevere in our efforts until the last one is removed. The excoriation, to which I drew your attention as a result of scratching, is an artificial eczema of a mild character. The irritation being removed, in all probability this will spontaneously disappear. If it should not do so, an application of some mild ointment will hasten its cure.

Before this patient leaves, I want to call your attention particularly to an eruption which he bears upon his upper lip.

It is scarcely necessary to say that this is in no way connected with the affection of the head; though instances are known in which pediculi have been found in the beard.

This eruption, you will observe, is characterized by considerable inflammation and infiltration of the tissues about the upper lip. It resembles, and is likely to be mistaken for, a rather rare disease,—tinea sycosis, or barber's itch.

I shall not at present enter into the differential diagnosis between the two diseases, but only remark that what we have here is simply a case of localized eczema, such as we saw upon the eyelid of a man who was before the class a few weeks ago. It is in a chronic condition,—the man tells us he has had it a long time,—and it will be at least two or three months before it is entirely cured. I shall direct the affected part to be well rubbed with sapo viridis every morning and evening, and, after this is washed off, to be kept dressed with unguentum diachylon day and night. Moreover, the man is to keep his lip shaved as closely as possible.

ECZEMA IMPETIGINOSUM.

This little boy, a year and a half old, makes his appearance for the first time. He presents an eruption which is confined to the legs; the rest of his body is, as you see, entirely free. His mother states that his general health is good,—that he eats well, sleeps well, and that his bowels are regular; the affection, then, is a local one. These dark-greenish crusts, surrounded by inflammatory areolæ, which you see scattered over the right leg, especially near the knee, are the points where the disease first manifested itself. They have gone through the various stages of papule, vesicle, and pustule, and remain as crusts or scabs. The mother tells us that the affection has existed about four weeks.

On the other knee you will see the eruption in its earlier stage. Here the appearance presented is quite different. These spots have only reached the vesicular stage; they have, in fact, only made their appearance within the last twenty-four hours. The rapid progress which has been made in that time is quite characteristic of this disease. We have here eczema impetiginosum, the impetigo of the older dermatologists, and one of the most common of all the diseases of the skin to which children are liable.

Having made our diagnosis, the treatment is easy and simple. Here we need no complicated formulæ, so long as the eruption runs its ordinary mild course. In a disease of this nature it is always well to ascertain if there are worms present in the alimentary canal. The eruption produced by ascarides is often followed by an eruption like that we have before us, and when these are found we should at once take measures to remove them.

No such source of irritation existing in the present case, we need merely apply some simple ointment. Ceratum simplex even might answer, but perhaps something a little more stimulating would hasten the recovery.

Unguentum zinci oxidi, or preferably an ointment containing the ammoniated chloride of mercury, may be recommended.

The latter should not be the officinal ointment, which contains forty grains to the ounce, but a milder preparation:

℞ Hydrarg. Ammonio-Chlorid., gr. v;
Adipis, ℥j.

Misce, fiat unguentum.

Before applying any ointment, we must have these crusts entirely removed. If we merely tell this child's mother to apply the ointment, she will rub it into the crusts. We might apply ointment in this way indefinitely without the slightest benefit. We therefore direct that these crusts shall first be removed, either by soaking them in warm water and Castile soap, or by the application of poultices. When they are out of the way, we shall have the ointment, in small quantity, applied three times daily, and when this child is again presented, a few days hence, we shall probably observe a decided improvement to have taken place. Should such not be the case, however, and should little or no improvement be manifest after persevering some days longer, we shall be justified in concluding that the disease depends on a vitiated condition of the system, and shall make a change in our treatment, with a view to reaching the cause, if possible.

JEFFERSON MEDICAL COLLEGE.

SURGICAL CLINIC OF PROF. S. D. GROSS, NOV. 1, 1871.

Reported by Ralph M. Townsend, M.D.

MEDULLARY ROUND-CELLED SARCOMA OF THE LEFT TONSIL.

A MARRIED woman, aged fifty-four years, but who looks to be sixty, from her emaciation and suffering, applies for relief on account of an enlarged tonsil, the tumefaction having been first noticed eight months ago. Examination reveals a tumor projecting into the left side of the throat from between the arches of the palate, and throwing the uvula forwards and to the right side. This tumor proved to be the left tonsil, immensely enlarged; but the affection is evidently something more grave than simple hypertrophy. It does not look angry enough to be encephaloid, and there is no venous enlargement apparent upon the surface, nor is there any ulceration, which in all probability would have existed had this case been one of epithelioma.

The tumor can readily be felt through the tissues of the neck, and a lymphatic gland of the size of a bean was detected at the anterior border of the sterno-mastoid muscle. The growth seriously interferes with articulation, deglutition, and respiration, and these effects become daily more serious.

It occurred to Prof. Gross and his colleague, Prof. Pancoast, that the écraseur would be the instrument best adapted for the removal of the mass. Accordingly, by means of strong steel pins, crucially inserted, the tonsil was transfixed at its base, and the chain of the écraseur slipped behind the transfixing pins. The mass, however, proved to be so soft and friable, that as the chain was tightened the pins gradually cut their way through, and only a few fragments of it were removed.

The woman, meantime, to whom no anæsthetic had been given, remained in the upright posture, perfectly conscious, and giving courageous and active co-operation to the operator. The écraseur having failed, Prof. Gross determined to enucleate the mass; and this—partly by means of instruments, but principally by the aid of his fingers—he succeeded in doing. The woman lost but little blood, and a favorable change in the character of her breathing was immediately apparent.

A portion of the specimen was submitted to Dr. Bertolet for microscopical examination, who made the following report:

"The mass of the tumor presents a reddish-white, homogeneous appearance, and feels soft and elastic to the touch. A small quantity of cloudy fluid can be scraped with the knife from its cut surface. The microscope shows the presence of small, round cells, with very little protoplasm, and very friable, so that the comparatively large nuclei with their shining nucleoli are usually seen free from the body of the cell. The intercellular substance is very sparsely developed, and of a hyaline, almost formless, appearance. No alveolar arrangement being found throughout the growth, we do not hesitate to designate it a medullary sarcoma."

This patient afterwards reported at the clinic on the 4th and 8th days of November. At the latter date the parts were granulating nicely, and the surface whence the tumor was removed was perfectly clean. The raw surface is touched every other day with a twenty-grain solution of the nitrate of silver, tincture of chloride of iron and milk-punch being given to invigorate the system.

MEDULLARY ROUND-CELLED SARCOMA.

Prof. Gross at this clinic also removed a medullary round-celled sarcoma from the neck of a young man, aged 27 years, from Lehigh County, Pa. A similar tumor was removed from this patient in the same situation, by the present operator, the previous August, and the operation was conducted with the greatest possible care. A primary operation, by another surgeon, had been performed previously. The tumor was of a globular shape, firmly attached, and quite vascular.

Prof. Gross stated the prognosis to be of the very worst character, this form of disease being as liable to return as encephaloid.

TORTICOLLIS.

A. S., aged 19 years, has had rheumatism of the neck, the consequence of which is shortening of some of the cervical muscles and a disagreeable deformity. The head is twisted to the right and downwards, and is incapable of being moved in the opposite direction. At first sight the sterno-cleido-mastoid muscle seems to be the one affected, but closer examination shows the shortening to exist in the trapezius, splenius, and probably complexius muscles. No disease of the cervical vertebræ is apparent, yet it is very probable that periostitis of the pieces of the skeleton may exist.

Prof. Gross stated that there was no necessity in this case for the use of the knife, but that constitutional and local means must be relied upon for making a favorable impression upon the affected structures. As the muscles of the neck are painful, and intolerant of motion and manipulation, this patient will take every night at bedtime, in pill form, ten grains of Dover's powder combined with one-eighth of a grain of the sulphate of morphia. Occasional doses of infusion of senna and sulphate of magnesia will be given to regulate the bowels, and the patient will live principally upon vegetables, milk, and stale bread, eating no beef.

Locally—

℞ Veratriæ, ℥j;
Cerat. simp., ℥j.—M.

S.—A portion the size of a marrow-fat pea to be rubbed along the sides of the spinous processes of the cervical vertebræ, night and morning, with the bare fingers. Before each application the neck will be well washed with soap and hot water, and passive motion instituted.

In the more simple forms of wry-neck, caused simply by muscular contraction, and when the case is comparatively recent, recovery may be generally looked for. If the deformity is complicated with organic disease of the spine, by serious lesion of the nervous system, or if a large number of muscles are implicated in the contraction, the prognosis is far less favorable.

RETENTION OF URINE, DEPENDENT UPON SPASMODIC STRICTURE.

A. L., aged 43 years, has not passed any urine for three days except that which dribbled away in consequence of the incontinence of retention. Quite a tumor is visible in his supra-pubic region, which is painful on pressure and dull on percussion. Just before the retention he was exposed to cold. He also suffered from gonorrhœa nineteen months ago, and lately has noticed a diminution in the size of his urinary stream.

A catheter was introduced without difficulty, and two quarts and a pint of straw-colored urine were drawn off. No sign of stricture existed. The man's bowels being constipated, he was ordered to take at once an ounce of Rochelle salt. He was also directed to stay in the house, in bed, and keep covered up warm. Also,

℞ Pulv. Ipecac. comp., gr. x;
Morphiæ Sulph., gr. ⅙.—M.

Ft. in pil. ij.

S.—Take at one dose, and repeat in six hours.

November 15.—This patient again reports at the clinic, and is yet unable to pass his water, Dr. Hearne, one of the clinical assistants, having had to pass the catheter upon him twice daily. The bladder is evidently paralyzed from the effects of its over-distention. The patient's appetite is good, although he suffers from constipation, and pain is present only when the bladder is distended. He was therefore ordered

Tinct. Ferri Chlor., gtt. xx;
Ext. Fld. Ergot., ʒj;
Strychniæ Sulph., gr. $\frac{1}{16}$.—M.

S.—Take this quantity, in water, four times daily.

The patient was also directed to take the wet end of a fringed towel and strike himself vigorously over the abdomen and small of the back, such procedure being described by the lecturer as a powerful stimulus. The man will still keep himself well protected from cold, and subsist on diet easily digested yet sufficiently nutritious. His urine will be drawn off at least three times in the twenty-four hours, the patient meanwhile being instructed how to introduce the catheter upon himself.

HOSPITAL FOR DEFORMITIES AND DISEASES OF THE NERVOUS SYSTEM.

THE clinics at this institution have been gradually increasing in interest, and now present a great variety of the most rare and instructive cases. In a visit lately made to one of Dr. S. Weir Mitchell's morning clinics, we were much struck with the number of cases which elsewhere would be looked upon as exceptional. The mode of carrying on the work is also instructive. Every patient is carefully examined by Dr. M. in person, and every point in the history noted with care by the assistants, so that for every case there shall exist a complete statement as to hereditations, personal appearances, and symptoms, while in cases of value, the utmost pains are taken to follow up the patient, and to learn from his physician what cannot be otherwise ascertained. The æsthesiometer, dynamometer, thermometer, and electric tests of muscles are all in habitual use; and it is worthy of remark that, whenever it can be done with propriety, the patient is stripped for final inspection. The treatment is then decided upon, and when it involves electricity, the patient is directed to return in the afternoon, when the assistants attend for the purpose of electrization.

A little slip of paper is fastened on the wall for every patient undergoing electric treatment. On this the name is noted, the form of battery employed, the force or number of cells used, and a record of each sitting is made,—these data being finally transferred to the case-books.

We were struck with the great number of cases of infantile palsy at every clinic. Dr. Mitchell believes that success in the treatment of these cases depends upon the stage of the disease at which they apply for treatment. If they come within a few weeks of the attack, the prognosis is best, and it becomes more unfavorable as time passes without treatment.

The success in dealing with the neuralgias of the working-class is quite notable. Belladonna is employed in most of them, but in small and frequent doses, while cod-liver oil and the acid phosphates appear to be the favorite tonics; and these, with the local use of galvanism, constitute the chief treatment.

At the last clinic we saw a woman who had suffered from neuralgia and feebleness of the right arm, the attacks seeming to be due to overwork with the needle, and always brought on by sewing. A smart tap of the hand would dispel the attack, which, however, soon returned if she continued her work. Tonics were ordered, and a treatment which is said to be here in frequent use. It consists in covering the whole limb with a liniment of turpentine, sweet oil, and strong sulphuric acid. Dr. M. thinks that the value of the treatment consists in not confining the medication to the painful part, but in irritating the entire surface of the limb.

Dr. M. remarked on the slight tenderness of the median nerve, and spoke of the use of ice to relieve neuritis. It is kept applied over the nerve, night and day, for a week or two. In a case which we saw at one of his clinics, a severe sciatic neuritis had been rapidly relieved by this method. In this patient galvanism has also been employed, locally, with marked benefit. We should add that the hand-neuralgia above described was cured in a few days by the liniment directed.

A lad from Elkton, Md., was the next case. He had palsy of the right shoulder and arm, from his shoulder and neck having been run over, five years ago, by a cart. Dr. M. described this case as noteworthy, because, with extreme atrophy of the muscles and absolute loss of voluntary power, sensation was entire, and the muscles readily responded to electricity; on which fact he founded a favorable prognosis, entirely justified by the circumstance that at the first sitting the patient reacquired power over every wasted muscle, and is now gaining rapidly.

The next case was ataxia with extreme plantar anæsthesia. There had been no ocular symptoms, except diplopia for a short time; and in this connection we may say that here in every case of central disease the ophthalmoscope is used.

Dr. M. remarked that, in the present instance, the patient not only could not walk when blindfolded, but that, curiously enough, he had been able to do so until his physician had told him of the usual difficulty in walking, since which time he had become, as he said, nervous about it. The patient acknowledged to having had syphilis, and the doctor observed that, even in those cases of this disease where there was a syphilitic history, he had yet to see one in which an anti-syphilitic treatment had been of any benefit.

Our attention was next called to a case of partial palsy of both arms,—probably of rheumatic character. The joints were diseased in one hand, and Dr. M. spoke of the difficulty at times arising as to whether such lesions were directly rheumatic, or due, as seemed likely here, to the central lesion. A patient with arthritis from injury to the axillary plexus, who came to a recent clinic, afforded a good illustration of joint-disease simulating rheumatism, which arises from extra-central nerve-injury.

We are glad to learn that, owing to private gifts and the State endowment of $10,000, this valuable charity has become possessed of a permanent home in larger quarters.

COXALGIA IN EARLY CHILDHOOD.—Dr. Mettenheimer, after alluding (*Journal für Kinderkrankheiten*, Heft 3 und 4) to the great infrequency of inflammation of the joints during the first year of life, reports the case of a child in whom coxalgia was developed at the early age of eight weeks. At this time the mother was alarmed by the constant cries of the child, who had previously been supposed to be perfectly healthy. Upon examination, Dr. M. found that the right thigh was flexed upon the pelvis and the right leg upon the thigh, and that the whole limb was strongly adducted. An attempt to alter its position gave rise to great pain, and further examination led to the detection of a fluctuating swelling behind the great trochanter. This was afterwards lanced, when a large quantity of thick, cream-like pus was evacuated. The child died in a very short time, of convulsions. A post-mortem examination showed that the head of the femur was dislocated on the sacrum, that the ligamentum teres and the capsule of the joint were destroyed, and that the surrounding muscles, aponeuroses, and even the subcutaneous cellular tissue were saturated with a sero-purulent fluid. No history of injury to the part could be obtained, and Dr. M., while admitting as possible that the disease may have been congenital, is inclined to think that it was developed after birth, in consequence of the very scrofulous diathesis of the child.

HYDROPHOBIA FOLLOWING THE BITE OF A CAT.—Dr. Brumwell reports in the *British Medical Journal* for October 14, 1871, a fatal case of hydrophobia. The patient, a clergyman, aged 32, was bitten in the hand by a cat, which was believed to be mad, on May 14, 1871. On August 10, symptoms of the disease developed themselves, and on the fourth day of the attack death occurred. The symptoms did not differ from those usually presented by hydrophobic patients. There was good reason to believe that the cat had been bitten by a mad dog a short time before she bit the patient.

PHILADELPHIA
MEDICAL TIMES.
A SEMI-MONTHLY JOURNAL OF
MEDICAL AND SURGICAL SCIENCE.

PUBLISHED ON THE 1ST AND 15TH OF EACH MONTH BY
J. B. LIPPINCOTT & CO.,
715 and 717 Market St., Philadelphia, and 25 Bond St., New York.

FRIDAY, DECEMBER 1, 1871.

EDITORIAL.

COMPULSORY VACCINATION.

THE week ending November 25 exhibited one hundred and fifty-three deaths from smallpox, being twenty more than in the week previous, while one hundred additional cases were reported on Saturday of the previous week. There has, moreover, been a constant increase in the weekly mortality since the late irruption of the malady.

We take it for granted that no one capable of judging upon the ordinary events of every-day life denies the generally protective power of vaccination, even though he may be compelled to admit the occasional occurrence of varioloid much earlier after vaccination than was formerly supposed possible. This is, of course, equivalent to saying, what we believe to be the case, that even those opposed to vaccination generally admit the vaccine disease to be for a variable length of time effectually protective, basing their objection to it on different grounds.

The experience of the past weeks has shown every physician engaged in actual practice, that not only has there been a large number of individuals in our community who have never been vaccinated, but that many still remain unvaccinated, while there is an almost incalculable number who have not been revaccinated.

Feeling certain that many of the deaths which have been recorded during this epidemic of smallpox would never have occurred had vaccination been more invariably practised, and feeling, also, satisfied that the majority of medical men share in our belief that the epidemic itself would probably never have broken out had revaccination been more general among us, we have felt justified in raising our voice against what we believe a most unfortunate condition of affairs,—a condition involved in the fact that not only have people been generally indifferent about revaccination, but that there are among us, in addition to many ignorant, quite as many intelligent persons who positively refuse to have themselves vaccinated or allow the operation to be performed upon their children. We are sorry to have to include among those who are opposed to vaccination persons of intelligence; for, unfortunately, intelligence does not always bring broad and liberal views; and, although it is one of the means to the latter end, it is by no means identical with it. But, while we have personal knowledge of those who claim to be intelligent entertaining objection to vaccination, in no instance do they include those in a community who are characterized by a thoroughly catholic culture, and whose opinions on all subjects are sought and respected.

We have already said that such objection is not based upon a want of confidence in the protective power of vaccination, but rather upon the belief that incurable diseases are capable of being thus transmitted. But is it not singular that those who should take this ground of objection are they who know least about the subject, intelligent though they may be in other matters, while scientific gentlemen who have made it their business to investigate these matters, deny that there is any practical possibility of disease being thus communicated? Certainly these intelligent persons would justly laugh at the medical man who would declare with regard to the subjects of their trade or art that they are defective or useless for the purposes for which they are intended, or capable of doing actual harm, on the ground that he knows more about the trade or art than the one engaged in it. All must acknowledge that such physician would stultify himself and deserve the ridicule which he would naturally incur. And yet the parallel is identical, except that the results are more unfortunate in the former case. Individuals are professing notions (they are not worthy to be called opinions) with regard to matters of which they know nothing,—notions which, if carried out, lead to sickness and death among innocent members of a community. And should such community be allowed no protection? On the other hand, are they not as much entitled to protection against such dire misfortune as can only accrue from smallpox as against the lawless acts of the madman? We do not assert that such notions are criminal, any more than is the hallucination of the maniac who destroys the life of his best friend, and who in doing so seriously believes that he is doing his duty. Yet the opponent of vaccination would justly cry out against the deficiency of the law which would allow such maniac to walk at large. Yet how many more lives have been lost in the past month from disregard of vaccination than would suffer at the hands of all the madmen of the nation let loose for a much longer time!

It is upon grounds like these that we approve of compulsory vaccination, and that we consider our laws defective so long as they do not thus afford us the desired security. For similar reasons, if those whose opportunities qualify them to decide deem it proper that revaccination should be compulsory, it too should be required by legal enactment.

Although we deem these reasons sufficient, it may be worth while—not, of course, for medical readers, but for such non-professional persons as may see these pages—briefly to state what have been the results of the most careful investigations in the direction of vaccination and revaccination.

In the first place, it has been positively proven that scrofula, the great bugbear of the people,—an affection quite undetermined as to its real nature, but which is

after all by no means so serious a malady as is supposed by many,—*cannot* be conveyed by vaccination; so, also, of cancer and the various non-specific cutaneous diseases. And as regards syphilis, which is really the only disease popularly associated with vaccination which is at all worthy the apprehension in which it is held, it has been conclusively determined that except the blood of an individual suffering with this affection is introduced into the arm of another, and that in very large quantity, or a scab of a syphilitic sore is used by mistake for one of vaccine, the inoculation of this disease too is impossible. Many, indeed, doubt the authenticity of any of the cases of venereal disease reported as thus arising; but, even supposing its origin possible in the manner stated, the chances, with the greatest indifference on the part of the vaccinator, are very much less than that the infant shall be poisoned by its own mother's milk; and when the precautions are taken which are observed by every family physician in selecting his virus, the communication of syphilis becomes practically impossible, while the protection against a most loathsome and fatal disease is so ample that those who have been recently revaccinated may, as a rule, expose themselves to it with impunity.

The preference, not unreasonable, which is entertained by some for virus which claims to have come direct from the cow, is shown by experience to be unfounded. For, in the first place, it is by no means so likely to succeed; and, in the second, being supplied as an article of commerce, and not by the conscientious selection of the family physician from healthy children whom he has perhaps himself attended at their birth and afterwards vaccinated, the chances are infinitely greater in favor of its being carelessly secured and insufficiently preserved. As regards success with it, we are personally cognizant of the vaccination of nearly a hundred cases from the matter contained in three sealed tubes, in which every attempt was unsuccessful. Moreover, the most extended experimentation in England during the past summer has resulted in the conclusion that the greatest amount of success in vaccination has been obtained by the use of virus which has passed through two or three individuals of the human species.

We have taken care that the statements we have made are strictly true; and we think them quite sufficient to justify such legal measures as will secure, not only primary vaccination, but also revaccination once between the ages of fourteen and twenty-one. To those who wish further to secure the most efficient protection, we should recommend a repetition of the operation whenever an epidemic of smallpox may prevail.

To those who are so thoughtless as to say—as we know to have been said by individuals professing respectability—that "of course doctors are in favor of vaccination, because they reap a harvest in consequence," we have no answer to make, except that vaccination is not necessarily attended by expense,—public vaccinators being appointed to vaccinate those who desire it free of cost.

THE RIGHT TO REPORT CASES.

THE November number of the *Pacific Medical and Surgical Journal* contains a brief reference to a suit for libel recently brought by a Mrs. Emma Parkinson against Dr. John Scott, of San Francisco. A few months before, her husband sued Dr. Scott for malpractice, of which he alleged his wife had been the victim at the California Woman's Hospital, laying his damages at $20,000. When the case came up, although the defendant was ready and anxious for a trial, the plaintiff did not appear, and it was therefore dismissed, for want of prosecution, at the cost of the plaintiff. Dr. Scott then published a history of the case in the February number of the journal already referred to, in which the patient is alluded to by name, the fact that she was laboring under constitutional syphilis being mentioned. Subsequently to the publication of this communication the suit for libel was instituted, the alleged libel being contained in the expression "*constitutional syphilis.*" The trial came off in October, the damages being again estimated at $20,000. Dr. Scott claimed, and we think justly, that having been arraigned before the public for malpractice, and refused the opportunity to justify himself by trial, it was his right to make his defence through the press, and that an intelligent statement of the case of his patient required the disease to be mentioned, in order to show cause for the treatment that was adopted. The prosecution denied this right, and sued for defamation of character. On the trial, medical testimony was adduced to prove the existence of constitutional syphilis. It was also maintained that constitutional syphilis did not necessarily imply moral impurity, as the disease might have been inherited, or contracted by accident or without criminal intercourse. These points being established by the defence, the counsel for the prosecution, it is said, virtually abandoned the suit, and the jury returned, without delay, a verdict favorable to the defendant. We may add that Dr. Scott was prepared to prove at the first trial, by the testimony of his colleagues and of other distinguished physicians of San Francisco, that his treatment of his patient had been eminently judicious and proper.

The editors of the *Journal* say, "The business of suing for malpractice and for libel has not hitherto been very successful in California. We do not call to mind a single instance of the conviction of a regular practitioner for malpractice, though a number of suits have been instituted at different times during the last fifteen or twenty years." Suits for malpractice in this city have generally, also, been unsuccessful, and have often subjected the plaintiffs to a good deal of expense; but our California friends will find, as we have found, that so long as there are unprincipled attorneys, such suits will continue to be instituted, whenever there is a prospect of a fee.

While expressing our most unqualified approval of the course taken by Dr. Scott to vindicate himself from the charge of malpractice, it does seem to us that the history of a patient should, as a general rule, be so

given that it will not be possible for the reader to recognize the individual referred to. The name of the patient adds nothing to the scientific interest of the case, and may, in many instances, rouse impertinent curiosity in those into whose hands the journal in which it is reported may fall; and it is to be recollected that among the readers of a medical periodical may be some who are not physicians. We have, therefore, adopted the invariable rule of giving only the initials of a patient's name; and if from any cause this would be sufficient to lead to his discovery, we would be disposed to omit them. With these precautions we think that there can be no question that every physician has a perfect right to report in the medical press any case which will be either interesting or instructive to the profession.

REFERENCES TO JOURNALS.

WE feel certain that we are giving expression to the feelings of a large majority of readers of medical periodicals when we venture to condemn the constant practice of omitting the dates of issues of journals from which extracts are made in the departments for abstracts or selected articles. It is, no doubt, sufficient acknowledgment of the journal whose matter is thus used that its name be given; but for the *convenience* of the *reader*, and the *value of the journal* thus appropriating, there should also be added the *date* of the issue from which the abstract is made. This in the majority of instances is quite possible, and we are certain that the additional value which would attach to the journal quoting would amply compensate for the slight additional trouble involved in thus completing the reference.

It has been our own custom thus to include in references the dates of issue of the journal from which an abstract is made, as well as to give, when possible, the dates of intermediate journals when the selection is not made directly from the journal in which it first appeared; but the omission of such date by an intermediate journal often makes it impossible to secure entire completeness in this respect.

LEADING ARTICLES.

MORE LIGHT NEEDED.

WE are pained, although not surprised, to read such humiliating paragraphs as the following, which has been going the rounds of the press lately, founded on the evidence offered in a recent poisoning case in the Far West:

"A lawyer, not in the case, who heard the medical testimony, remarked that another such trial would ruin the medical fraternity of Kansas. It is a subject of general comment that the doctors contradicted each other upon nearly every point on which they were questioned. They even differed in regard to the effect of that well-known drug, quinine, which is taken by everybody in Kansas. One learned doctor hesitated a long time before he would say that congestion of the lungs was a common cause of death. When they took hold of those poisonous drugs, morphine and atropine, every one had a different idea about them."

It seems to be inconsistent with the advanced state of medical education of the present day, that an exposition of the principles of medical jurisprudence is not considered absolutely essential to the completeness of a course of medical instruction. The average practitioner, being left to his own resources, which may be limited, and to his own experience, which may be insignificant, picks up enough scattered material to be available when he is placed under the high pressure of the witness-box; but he has always accustomed himself to regard even a moderate knowledge of forensic medicine as an accomplishment to be called into requisition only in an emergency, for which he can prepare himself at a few hours' notice. Although medical jurisprudence must have been as old as medicine or law itself, and although the courts have teemed with cases that have puzzled and interested the representatives of both professions, the lamentable truth still remains that the physician of the present day is in a perpetual state of unpreparedness—if we may use such a term—for the vital questions of the court-room; and this, too, in spite of the fact that every important topic connected with medical science that can require elucidation from the medical witness is embraced in the study of medical jurisprudence.

A proper distinction is not made in the court-room between the testimony of a well-informed medical man, who, though thoroughly competent to give intelligible facts and opinions, may be confused by the persistent efforts of a browbeating attorney, and of an ignorant medical pretender, who, while enveloping his evidence with technicalities,—often altogether misapplied,—trusts to the want of information of the court and counsel on the subject under examination to carry him through without detection. It must be an unsatisfactory state of affairs when the life of the accused hangs on the slender thread of medical evidence elicited by a wholly ignorant member of the bar from an only partially-prepared practitioner of medicine. Such contingencies must of course be rare at the present day, and we should be sorry if we ever had to record such perplexing scenes as some years since occurred in Virginia, in a case of presumed infanticide, founded on the finding of certain bones, but whether they were really those of a human fœtus or a pig, neither court, counsel, nor medical witnesses could decide. And yet these are the very cases in which the proverbial disagreement among doctors occurs in judicial investigations almost every day, the world over. It seems as if it was a difficult matter to get an agreement in more than mere facts from a number of medical witnesses examined in the same case: the moment an opinion is asked for, the widest dissimilarity of views is expressed, and the most fanciful theories are given utterance to. A witness may also trip, and then the ever-

ready legal tantalizer takes an active part in the further invalidation of the medical testimony. The greater his powers of dissection,—a genuine process of inquisition to the tortured physician,—the higher becomes his reputation with his professional brethren and with the public.

The trial of Palmer in England several years since for poisoning was, unfortunately, memorable as much for the diversity of opinions expressed, and for the contrariety of the testimony on many salient points of toxicology, as it was for the ability and attainments of the learned witnesses. It would be unfair to say of such men that a want of information lay at the bottom of all this unsatisfactory testimony; it was rather a lack of accurate observation of the actions of poisons, and too great confidence in their own views of their properties and effects. Such is not, however, the case in the great mass of these judicial inquiries. The glaring fault to be corrected in this country, at least, is the want of a more thorough system of instruction during student-life in the principles of forensic medicine. Until medical jurisprudence is taught less as a mere incidental subject—tacked on here and there to chemistry and materia medica in places where it seems to fit—and more as a branch worthy of separate and special study, the average medical man, trusting to his own experience, may go on successively blundering, and laying up the results of his blunders for his own guidance, so that even at the end of a long life his stock of real knowledge will be so extremely limited that it will neither benefit himself nor the world at large, if the occasion should arise to give it publicity. The case is very different when the practitioner, receiving the groundwork of his information on forensic medicine from the lips of those who are competent to impart it, continues afterwards to store up for future reference the recorded experience of others, so that when needed it may be rendered available.

R. J. D.

CORRESPONDENCE.

To the Editors of the Philadelphia Medical Times.

MESSRS. EDITORS,—The *American Journal of the Medical Sciences* for October contains a review of an article "On Amputations at the Ankle-Joint in Military Surgery," contributed by me to the Surgical Memoirs of the U. S. Sanitary Commission, in which occurs the following criticism:

"Comparing the mortality of ankle-joint with that of leg amputations, Dr. Smith finds that in the United States army, during the War of the Rebellion, the death-rates of the operations in question were respectively 13.43 and 26.02 per cent., while in the Confederate service the death-rates were 20 and 27 per cent., and in the British army, during the Crimean war, 18 and 36 per cent. 'From these statistics,' Dr. Smith adds, 'it appears that amputation of [*at* in the original] the ankle-joint is 50 per cent. less fatal than the alternative amputation through the leg.' We cannot commend the accuracy of this calculation, which, indeed, we are a little surprised to find in the work of a writer who is as much accustomed to statistical investigations as is Dr. Smith. Eighteen per cent. is, indeed, half of, but by no means 50 per cent. less than, 36 per cent.; and the difference in death-rates is obviously *not* 50 per cent., but 12.6, 18, or 7 per cent., according to the figures derived from the different sources mentioned."

The statement in the text was to the effect that the death-rate in ankle-joint and leg amputations in the United States and British armies was in the ratio of one of the former to two of the latter. The "accuracy of this calculation," based on these statistics, that ankle-joint amputations were 50 per cent. less fatal than leg amputations, and also the accuracy of the reviewer's calculation, that "18 per cent. is, indeed, half of, but by no means 50 per cent. less than, 36 per cent.," I am quite willing to leave to the decision of the reader.

On looking over recently the very valuable "Report on Amputations at the Hip-Joint," by Assistant-Surgeon Otis, issued as Circular No. 7 from the Surgeon-General's Office, I find the following allusion to S. Cooper's case in a note on page 12: "Dr. Stephen Smith (*New York Journal of Medicine*, vol. ix. p. 204) rather unreasonably excludes Cooper's case from his statistics, because the patient died before the operation was completed." The case was excluded from my tables because it was not an amputation at the hip-joint; that operation was *not* performed, before or after death, so far as the record shows. The case is thus recorded by Cooper in his "Surgical Dictionary:"

"In one dreadful case of fracture of the upper part of the femur by a grape-shot, where the operation had been delayed too long, the whole limb being inundated with matter, and the upper end of the lower portion of the bone projecting through the flesh backwards, I ventured to perform the same operation (Abernethy's method of amputation at the hip-joint) at Oudenbosch in Holland, a few days after the assault on Bergen-op-Zoom; and here happened what must often occur. Immediately the soft parts had been divided, as the bone was broken to pieces, the limb came off, leaving the head of the bone, the trochanters, and a small piece below them projecting. Had not the man appeared in a very bad way by the time the vessels had been secured, I should now have removed the head of the bone; but the shock of the operation was such that he survived it but a few minutes, though scarcely any blood was lost."

That Dr. Otis does not himself regard this case as an amputation at the hip-joint, though he has tabulated it among "Intermediate Amputations at the Hip-Joint," is proved by his remark in the table that "the exarticulation was not completed." It is surprising that he should have admitted this case of amputation in the upper part of the thigh in tables of amputation at the hip-joint, and thus vitiate his conclusions, while he rejects a successful amputation at the hip-joint, vouched for by a committee of the American Medical Association (the case of Drs. Richards and Claggett).

Truly yours,

Stephen Smith.

New York, November 16, 1871.

To the Editors of the Philadelphia Medical Times.

MESSRS. EDITORS,—Having had a case of urethral stricture, with accompanying urinary fistulæ, recently fall into my hands, I operated upon the patient, *secundum artem*, by external urethrotomy upon a Syme's staff, and immediately afterwards passed a No. 14 steel sound into the bladder. The fistulæ were next slit up, and the patient left in good condition. Four days afterwards I attempted to use the same sound again, but failed utterly, on account of the exquisite tenderness of the ante-scrotal portion of the urethra. To what

this tenderness was due I am still unable to say. The following day I chloroformed the patient, and Dr. Washburn passed the sound without the slightest difficulty.

In a few hours I was summoned in haste, and found the patient suffering from well-marked urethral fever, consequent on the use of the instrument. As pain simulating the "pleuritic stitch" was a prominent symptom, I gave him hypodermically half a grain of sulphate of morphia, which soon brought relief from the pain, leaving a host of less pressing troubles to be met by milder means. In a day he was safely through the difficulty, and had an interim of rest until the sound was again passed. It, however, brought with it a return of all the former suffering, which was so intense as almost to make me resolve to relinquish its use at the risk of a return of the stricture. Liberal doses of quinine and morphia brought relief in a few hours, but left severe after-troubles,—due to the morphia in great part.

Nervous shock was evidently the cause of all this distress. Part of the resulting evils of the solid steel were purely hysterical, but part were also of more serious import; but both trains of phenomena indicated, I thought, a free use of bromide of potassium. Accordingly I administered it in thirty-grain doses after each subsequent passage of the instrument, and on but one occasion did the urethral fever supervene. This once the sickness of stomach induced by the anæsthetic caused a rejection of the medicine, and then the fever was not less severe than before I began its use. If the bromide has been used for a similar purpose before, I am not aware of it, I regret to say. Its marked good results in my hands induce me to ask for it a trial in like cases, which any large hospital so frequently furnishes.

J. T. ROTHROCK, M.D.

WILKESBARRE, PA., October 23, 1871.

REVIEWS AND BOOK NOTICES.

A PRACTICAL TREATISE ON FRACTURES AND DISLOCATIONS. By FRANK HASTINGS HAMILTON, A.M., M.D., LL.D., Professor of the Practice of Surgery with Operations, in Bellevue Hospital Medical College, etc. Fourth Edition, Revised and Improved. Illustrated with three hundred and twenty-two Wood-Cuts. 8vo, pp. xxiv., 789. Philadelphia, Henry C. Lea, 1871.

We know of nothing which gives more promise for the future scientific attainments of the medical profession in America than the increasing demand for monographs like that of Dr. Hamilton. In twelve years three editions of the book have been exhausted, and the fourth is now before us. Most of our valuable monographs come from abroad; but that we do not lack at home authors capable of exhaustively treating a practical subject, the work before us is satisfactory evidence.

Of a book so well known it is superfluous to attempt an extended analysis, and we shall only aim to lay before the readers of the *Times* a few points which have struck us as we read the volume, and notice some items wherein this differs from preceding editions. Since its first issue some thirty-two pages and thirty-three wood-cuts have been added to it,—sixteen of the latter being taken from Dr. Bigelow's valuable essay on the Hip.

On page 37, Prof. Hamilton says he has seen tetanus follow the rough handling of a fracture, which would be in no way a remarkable event, even without the roughness so properly reprobated. Prof. Lister's carbolic-acid method is referred to when speaking of the treatment of compound fractures, and the mode of application is afterwards pretty fully described, but the author does not commit himself to any positive opinion as to its value. For ununited fracture, Brainard's method of treatment is advised, and our author, after describing a drill of his own invention, with commendable candor admits that the one introduced by Dr. Brainard is the better instrument. The chapter upon the repair of bone is not at all up in its details, the reader being referred to works upon surgical pathology for any information he may seek upon the subject. This we regard as a mistake, for a succinct notice of the work done by the microscopists in this direction would not have occupied much space, and would have materially added to the value of the volume. We cannot agree with Dr. Hamilton when he condemns the use of adhesive plaster in fractures of the ribs; for, though the strips may be somewhat loosened by the respiratory movements, we have always found them most valuable adjuvants to the bandage. While upon fractures of the forearm, the writer refers to several cases in which he has observed gangrene to occur after the fractures had been dressed at dispensaries and the patients had failed to return at the proper time. It has always seemed strange to us that persons suffering from fractures should ever be treated as out-patients, for the results are permanently recognizable, and a large portion of the suits for malpractice have been for deformity following fractures. We ourselves feel as much anxiety about the treatment of fractures falling under our care as we experience in any other class of surgical cases, always insisting upon a careful supervision of their progress to recovery; and we would most emphatically indorse the opinion expressed, by Prof. Hamilton, that fractures of the forearm especially, should be seen by the surgeon at least once in the twenty-four hours, for the first ten or twelve days.

The second part of the book consists of an exhaustive treatise upon dislocations. Prof. Bigelow's views upon luxations of the hip-joint are treated with due consideration, and most of his illustrations of the Y ligament are reproduced.

In conclusion, we would say that Dr. Hamilton's style is decided without being dogmatic, and lucid in an eminent degree, and that the book is one which we should suppose would be found upon the shelves of every American practitioner of surgery.

TRANSACTIONS OF THE MINNESOTA STATE MEDICAL SOCIETY. Pamphlet, 8vo, pp. 63. St. Paul, Pioneer Printing Company, 1871.

The third annual meeting of this society was held at St. Paul, February 7 and 8, 1871. It numbers at present one hundred and twenty-eight members.

The opening address was delivered by the President, Dr. Samuel Willey. The members contributed eleven papers on various subjects: a short notice of each is appended.

1. A report of a case of ovarian tumor cured by spontaneous rupture into the vagina.

2. Report of the case of Dr. E. E. Braun. Dr. B. noticed a small tumor on the internal surface of the thigh in April, 1866. It enlarged, and, from distention, the skin ruptured and became ulcerated in July, 1870. Pain had been severe, after the first year, in the tumor and down the leg into the foot. Death resulted from exhaustion in October, 1870. The tumor was "fatty," and weighed fifty-eight pounds.

3. Medullary cancer, involving both testes. The right testicle was found in the right iliac fossa, and weighed three and a half pounds; the left weighed six pounds. It was found lying upon the vertebral column, and extended from the sacrum to the diaphragm. Adhesions had formed to all the surrounding tissues. The symptoms of disease had lasted two years and eight months.

4. Tubal pregnancy; an interesting case, in which the tumor—which was at first lateral—became central at the fourth month, all pain, which had been very severe up to that time, ceasing. The distended Fallopian tube remained until parturition, which occurred at full term; but after an excessive discharge of liquor amnii, after the escape of the fœtus, it disappeared.

5. Successful application of manipulation for reduction of a dislocated femur.

6. The annual essay, by S. D. Flagg, M.D., on Post-Natal Atelectasis, is a brief, well-written compilation.

7. An interesting case of elephantiasis tuberculorum, com-

plicated with the anæsthetic form, with a translation of an article by Drs. Boeck and Danielsen on that subject.

8. Interesting case of glanders in the human subject which recovered under the use of carbolic acid internally.

9. Report of the committee on local statistics of surgical diseases and the use of anæsthetics. It closes with the carefully-reported histories of three cases of hip-disease at different stages of the disorder, showing two perfectly satisfactory recoveries and one death.

10. An investigation into two cases of death from the use of the fresh root of cicuta maculata.

11. Report of the committee on practical medicine: an account of an epidemic of malarial typhoid fever.

BOOKS AND PAMPHLETS RECEIVED.

A Text-Book of Pathological Histology: An Introduction to the Study of Pathological Anatomy. By Dr. Edward Rindfleisch, O.Ö. Professor of Pathological Anatomy in Bonn. Translated from the Second German Edition, with permission of the Author, by William C. Kloman, M.D., assisted by F. T. Miles, Professor of Anatomy, University of Maryland. With two hundred and eight Illustrations. 8vo, pp. 695. Philadelphia, Lindsay & Blakiston, 1872.

The Relation of Epilepsy to Insanity and Jurisprudence. By W. J. Conklin, M.D., Assistant-Physician of Southern Ohio Lunatic Asylum. Pamphlet, pp. 43.

The Prevention of Abscesses in Hypodermic Medication, with the Description of an Instrument for the Injection of Strychnia. Pamphlet. By Reuben A. Vance, M.D. Reprinted from the *Medical World*, October, 1871.

The Science and Practice of Surgery. Illustrated by four hundred and seventy Wood Engravings. By Frederick James Gant, F.R.C.S., Surgeon to the Royal Free Hospital. 8vo, pp. xlv., 1265. Philadelphia, Lindsay & Blakiston, 1871.

An Introduction to Pathology and Morbid Anatomy. By T. Henry Green, M.D., London, Lecturer on Pathology and Morbid Anatomy at Charing-Cross Hospital Medical School. Illustrated by numerous Engravings on Wood. 8vo, pp. 260. Philadelphia, Henry C. Lea, 1871.

A Treatise on Human Physiology, designed for the Use of Students and Practitioners of Medicine. By John C. Dalton, M.D., Professor of Physiology and Hygiene in the College of Physicians and Surgeons, New York, etc. Fifth Edition, Revised and Enlarged, with two hundred and eighty-four Illustrations. 8vo, pp. 728. Philadelphia, H. C. Lea, 1871.

The Principles of Psychology. Part II.—The Inductions of Psychology. By Herbert Spencer. Pamphlet, pp. 288. New York, D. Appleton & Co., 1870.

Remarks upon the Diagnosis of Ovarian Tumors from Fibro-Cystic Tumors of the Uterus. By Charles C. Lee, M.D., Surgeon to the Charity Hospital. Reprinted from the *New York Medical Journal.*

Hand-Book of Skin-Diseases. By Isidor Neumann, Docent an der k. k. Universität in Wien. Translated from the Second German Edition, with Notes, by Lucius D. Bulkley, A.M., M.D., Surgeon to the New York Dispensary, Department of Venereal and Skin Diseases. Illustrated with sixty-six Wood-cuts. 8vo, pp. xiv., 467. New York, D. Appleton & Co., 1871.

Medical Communications of the Massachusetts Medical Society. Vol. XI., No. 5, 1871. Second Series, Vol. VII., Part V. Pamphlet.

Physical Effects of Compressed Air, and of the Causes of Pathological Symptoms produced on Man by Increased Atmospheric Pressure employed for the Sinking of Piers in the Construction of the Illinois and St. Louis Bridge over the Mississippi River at St. Louis, Mo. By A. Jaminet, M.D. Pamphlet. St. Louis, R. & T. A. Ennis, 1871.

Fecundity, Fertility, and Sterility, and Allied Topics. By J. Matthews Duncan, A.M., M.D., L.R.C.S.E., F.R.C.P.E., F.R.S.E., etc. Second Edition, Revised and Enlarged. 8vo, pp. xvi., 483. New York, William Wood & Co., 1871.

Circular No. 3, War Department, Surgeon-General's Office, Washington. A Report of Surgical Cases in the Army of the United States from 1865 to 1871. Quarto, pp. 296. Washington, Government Printing-Office, 1871.

PROCEEDINGS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF PHILADELPHIA.

THURSDAY, OCTOBER 26, 1871.

THE PRESIDENT, DR. J. H. HUTCHINSON, in the chair.

DR. WILLIAM PEPPER presented a specimen of *papillary tumor of the larynx*. The case from which the specimen was obtained forms the basis of two clinical lectures in Nos. 28 and 29 of this journal.

The tumor sprang from the vocal cords, and almost entirely occluded the glottis. The patient was a little girl, aged 3½ years. The symptoms of obstructed breathing first made their appearance after an attack of measles, and steadily developed until death occurred, from dyspnœa and asthenia, within five months from the beginning of the disease.

Dr. F. F. MAURY said that the case just reported by Dr. Pepper reminded him of a somewhat similar one which occurred in his practice. The growth was attached to the body of the larynx by a broad surface. It was decided not to operate, and, when last heard from, the patient was still living and the dyspnœa somewhat abated.

Dr. JOHN H. PACKARD stated that he reported, in 1862, to the society two cases of peculiar growth, which he believed to be probably of analogous character, found in the bas-fond of the bladder also after an attack of measles.

Dr. MAURY observed that he had seen such growths in the bladder independently of measles.

Dr. PACKARD exhibited a specimen of *obstructed bowel*, the symptoms of which simulated the strangulation of a co-existent scrotal hernia of large size.

Dr. JOHN ASHHURST, JR., recalled two similar cases of hernia connected with internal strangulation of the intestine by bands of adhesion, one, relieved by operation, reported by Mr. Bryant, of Guy's Hospital, and the other, which occurred at the Pennsylvania Hospital, reported by Dr. T. H. Andrews in the Proceedings of this Society.

Dr. Ashhurst referred to a plan of treatment,—inapplicable, however, in this case, owing to impending rupture of the bowel,—namely, puncturing the intestine to relieve its distention, and thus facilitate reduction,—an operation which had been performed by Mr. Tatum and by several German surgeons.

In reply to a question by Dr. Brinton, Dr. A. said that Mr. Tatum's operation was done in a case of hernia, but that Mr. T. Smith had punctured the bowel through the linea alba, as a euthanasial measure, in a case of rupture of the intestine without external wound. A similar proceeding is recommended by Prof. Gross in certain cases of intestinal obstruction.

Dr. H. ALLEN referred to the early appearance of the stercoraceous vomiting as an indication that the obstruction had been high up in the small intestine. The number of *valvulæ conniventes* about the site of the constriction appears to confirm this. He invited attention to the seat of localized pain as a symptom of value in similar cases, instancing Mr. Habershon's interesting observations on the subject in the Guy's Hospital Reports, 1870–71.

GLEANINGS FROM OUR EXCHANGES.

CHLORAL.—In a note presented by M. Robin to the Académie des Sciences (*Bulletin Gén. de Thérapeutique*, September 15), M. Byasson says that the results of his investigations lead him to believe that the action of the hydrate of chloral differs from that of chloroform, and that it may be considered as the resultant of that of two products into which chloral resolves itself when in contact with the blood,—chloroform and formic acid. The action of chloral on the human organism is different from that of trichloracetic acid and the trichloracetate of soda, which resolve themselves into chloroform and acetic acid, but is analogous to it.

A part of the chloroform, formed by the action of the alkaline carbonates in the blood on the hydrate of chloral, is eliminated by the lungs, and a part of the formic acid is excreted by the kidneys under the form of formate of soda.

The action of chloral may be stated to be practically as follows: First degree, a slight soporific and sedative action upon the nervous system of sensation, which may be accompanied by periods of restlessness resembling those produced by dreams. Second degree, a decided soporific action, with diminution of the sensibility, corresponding to a calm sleep of variable duration, but without apparent derangement of the principal functions of life. This sleep may be prolonged during a very long period of time by the administration of successive doses of this medicine. Third degree, an anæsthetic action, with complete loss of sensibility and relaxation of the muscles,—a condition which generally terminates in death, simply because it is impossible for the organism to eliminate with sufficient rapidity the products of the remedy.

THE BILE-ACIDS IN JAUNDICE.—Dr. E. A. Golowin, in a carefully-prepared paper in *Virchow's Archives*, September 18, states it as his belief that a permanent retention of the bile causes such alterations in the liver as to interfere with the secretion of the bile-acids. The fact that the gall-bladder occasionally contains a dark thick fluid holding the bile-acids in solution cannot be used as an argument against this view, as this may have been secreted at a time when the liver was still forming the bile-acids, and have been retained in the gall-bladder for some time.

EFFECT OF CARBOLIC ACID AND ELECTRICITY ON SPERMATOZOIDS.—Prof. James T. Whittaker, in some recent experiments upon reproduction (*The Clinic*, October 21, 1871), has shown that carbolic acid in full strength not only kills spermatozoids, but destroys them, leaving under the microscope but a mass of transparent globules of irregular (polygonal) outline and various size,—masses of complete and permanent coagulation. The acid rapidly advances in an irregular wall, beading, separating, and destroying the zoosperm within its limits in a few seconds. The extra-mural filaments remain motionless as at once arrested, until more acid be added, when they too disappear. In even a weak solution with glycerine it will speedily arrest motion. The vapor of the acid has a similar effect.

If electricity in the interrupted current be sent through a drop of semen, the spermatozoids are speedily killed by shock. If the constant current be used, only those at the positive pole are destroyed. This is from the development of acid at this pole. If the current be constantly changed by continually reversing the poles, the development of acid is apparently prevented, and the spermatozoid is made to experience the stimulus simulating vitality. Their motions are increased and prolonged. Moreover, motion is resumed for a short time in those recently quiet.

If carbolic acid, however, be previously brought into contact with the drop, the electric current has no effect. As stated by Burdon-Sanderson, "There is no movement,—it is death."

MORBID GROWTHS OF MIXED NATURE.—Dr. J. Collins Warren, in a paper read before the Boston Society of Medical Sciences (*Boston Medical and Surgical Journal*, October 19, 1871), reported two cases which exhibited the peculiarities of adenoma and carcinoma combined to such an extent as to have made it difficult to decide to which class of growths they belong.

One was a case of naso-pharyngeal polypus in a young man æt. 26. He was twice operated upon at the Massachusetts General Hospital, and Dr. Warren's observations are based upon the growth removed at the second operation. The tumor filled the whole naso-pharyngeal cavity, pressing the soft palate downwards, projecting through an opening in the left side of the nose and partly covering the left eye, which was dislocated by pressure. After removal, the masses were nodulated, and appeared like soft jelly. In thin section the tumor was shown to be made up of a fibrous stroma surrounding alveoli, many of which were lined with cylinder epithelium and distended with gelatinous substance. At the surface the epithelium had a tubular arrangement, presenting the appearance of follicles opening into the nasal cavity. The appearance of the growth in section was somewhat that of colloid cancer; but the absence of any mucous degeneration of the stroma and the character and arrangement of the cells precluded this form of disease.

Again, the growth resembled glandular tissue, and the presence of gelatinous or mucous material could be accounted for by supposing it an accumulation of retained glandular secretion; but the departure from the normal gland type was too great, and the irregularity of the formation, the rapid growth, and the destructive character of the polyp present peculiarities found only in a more malignant type of new formation.

The points of interest illustrated by this specimen are stated to be these:

1. The occasional occurrence among naso-pharyngeal polypi of a variety which, though resembling others to the naked eye, differ microscopically and clinically, and are found to be malignant in nature.

2. This tumor is the only form of cancer which we find occurring primarily in the nasal cavity and the antrum.

3. This is a sample of carcinoma only locally malignant, and is never followed by deposits in the neighboring glands or in distant organs.

4. The presence of large masses of mucus in acini, obliterating largely their epithelial lining, and thus masking their original anatomical character.

The second case reported was that of a tumor near the right parotid gland in a man aged 50. When removed, it was as large as a goose-egg, soft and encephaloid in appearance, and surrounded by a fibrous capsule. Microscopically it was found to consist chiefly of polygonal gland-like epithelium, with a tendency to arrangement similar to that of the neighboring parotid,—that is, they were inclosed in acini surrounding a central cavity, and supported by a stroma which towards the centre was scanty, but was more abundant at the periphery. The cells and cavity of the acinus were both larger than in the normal gland. The capsule was infiltrated by cylindrical masses of these cells, which ramified in a manner frequently observed in certain kinds of cancer. Thus there was a tendency in the new growth to imitate the adjoining gland, both in character and the arrangement of its cells, while at other points was a departure from the normal gland type,—indeed, appearances which suggested a more malignant form of disease than simple adenoma.

That the disease was originally benign in character, appeared from the clinical history.

Dr. W. found nowhere a minute description of a form of tumor similar to the one described.

TRANSMISSION OF SYPHILIS TO THE THIRD GENERATION.—M. Coates (*Lancet*, October 21), in the course of an address to the members of the Salisbury Medical Society, said, "Many years ago a postboy came under the care of my father for primary syphilis. He infected his wife. She had primary, afterwards secondary, and finally tertiary symptoms; carried a large cicatrix on her forehead—the result of caries—to the grave. Soon after her marriage she became pregnant, and aborted many times; at last she bore a living child,—a girl. At fourteen years of age, while at school, two syphilitic ulcers broke out on one of her legs, which, when healed, left two as characteristic ulcers as I ever saw. She married early, and had a very delicate child; the next child was born dead and putrid; the third presented, a few days after birth, character-

istic symptoms of infantile syphilis, and died." This series of cases he believes to be unique.

FUNCTION OF THE ANTERIOR PART OF THE BRAIN.—Prof. Schiff, of Florence (London *Lancet*, October 21, 1871) is said to have confirmed the announcement that the anterior portion of the brain has to do with motion; but he has found that the muscular movements do not arise from an actual motor property of the brain, but are reflex movements excited by irritation of certain parts of the cerebrum which regulate tactile sensibility (not sensitiveness to pain). The removal of such parts does not *directly* abolish the movements, but disturbs them indirectly through the destruction of tactile sensibility.

PUNCTURE OF THE COLON IN TYMPANITIS.—Mr. J. H. Wathen refers in the *British Medical Journal* for October 21 to six cases in which puncture of the colon was resorted to for the relief of tympanitis. In one case the distention of the bowels came on during peritonitis, and, although temporary relief was procured by the operation, the patient ultimately sank. In the second case death was due to double pneumonia. In the third and fourth cases the cause of death is not stated, but the patients lived several days after the operation. In the fifth case the patient recovered; and in the sixth case the patient recovered sufficiently to go upon a drunken spree, of the effects of which he died.

THE FUNCTIONS OF THE SPLEEN.—The study of the functions of the spleen (*Gazette Hebdomadaire*, October 3; from *Centralblatt* and *Allgem. Wiener Med. Zeit.*, August 8) has demonstrated the analogy of this organ to the lymphatic glands, and, consequently, the hæmapoetic functions of the former are believed to be established. This explains the fact that this viscus is not essential to life, which has been demonstrated by the experiments of Malpighi and other investigators. Tiedemann and Gmelin have come to the conclusion, in consequence of their experiments, that after the removal of the spleen the lymphatic glands supplement it in its functions. Prof. Mosler has communicated a résumé of the results obtained in thirty experiments in which the spleen was removed. These, while they confirm some of the results of previous experiments, differ from them in some of the details.

The marrow of bones appears to play an important part in hemapoesis, and well-marked alterations, similar to those in leukæmia, are sometimes found in it after the removal of the spleen. The vicarious properties of the lymphatic glands, which seem to depend upon various external conditions, are not always completely developed in animals deprived of their spleens, for during the first few months following the operation the blood appears to be altered in its composition. We must, therefore, admit that the spleen has a special influence upon the formation of blood, and especially upon the genesis of the white and red corpuscles. The spleen seems to be without influence upon the gastric and pancreatic digestion. An abnormal increase of appetite in animals after extirpation of the spleen is not a constant occurrence.

THE BLOOD-VESSELS OF THE LUNGS IN EMPHYSEMA.—Dr. Isaakssohn, in an article on this subject (*Virchow's Archives*, September 18), says that the number of the blood-vessels which ramify on the walls of the alveoli of the lungs is much less in emphysema than in the healthy condition of these organs. Instead of having a tortuous course, as in health, the capillaries are straight, in some places interrupted, and in certain positions do not allow injections to pass readily through them. In these positions the vessel is seen to be filled with a granular, colorless mass. The pathological changes begin in the endothelium of the capillaries. When the healthy vessels are injected with a solution of nitrate of silver, dark lines and black points, which Eberth and Cohnheim regard as mouths, come into view. This is not found to be the case in vessels taken from emphysematous patients. The wall of the vessel, it is true, becomes dark, but the characteristic black lines or points are not produced. The first change observed is that the walls of the vessels become granular, and that there is a tendency to the precipitation of white blood-cells at the affected points. These corpuscles increase in number, and—partly in consequence of their presence, and partly in consequence of a deposition of a fibrinous or granular matter upon them—the vessel is at last completely obstructed. A little later the vessel and its contents undergo fatty degeneration, and the former may disappear entirely, giving rise to an interruption in the course of the vessels. The changes in the blood-vessels are to be regarded as the primary disease; the changes in the lung-tissue itself, as secondary to it.

CARBUNCLE TREATED BY CUT CUPS.—M. Hamon (*Bulletin Générale;* from the *Revue Méd.*, June, 1870) recommends the application of cups to carbuncles after they have been freely lanced. From two to three ounces of blood should be removed in this way. He claims that the phlegmonous affection may in this way be aborted if it is done in time, and that the sloughing and profuse suppuration, which are the consequences of the modes of treatment most in vogue, are avoided by it.

ORIGIN OF WHITE SPOTS ON THE HEART'S SURFACE.—In a paper read before the Clinical Society of London (*Lancet*, October 21, 1871), Dr. Baumler endeavored to prove that the white or milky spots frequently met with on the surface of the heart at post-mortem examinations have a clinical history of very transient acute pericarditis. He adduced in support of this proposition two cases in which an acute illness accompanied by dyspnœa, with pain behind the sternum, radiating upwards to the larynx, the left shoulder, and towards the left ear, and with slight febrile disturbance, was accompanied by a characteristic pericardial friction-sound, lasting, like the other symptoms, for only two or three days. In a third case, where the onset had been more gradual, the friction-sound was heard over a larger area, and there was also some distention of the pericardium by fluid.

CHLORAL IN CHOLERA.—M. Reichard (*L'Union Médicale;* from the *Gazette Médicale de Strasbourg*) has employed chloral in cholera to fulfil the following indications: 1. To relieve the cramps at the commencement of the disease. 2. To assuage the precordial pain at its close. 3. To arrest vomiting; and, 4. To procure sleep. He says that not only are all these results obtained, but the success of the treatment also surpassed expectation.

INUNCTION IN THE TREATMENT OF DISEASE.—The Italian physicians appear (*Journal für Kinderkrankheiten*, Heft 3 und 4) to be very fond of the use of olive-oil by inunction in the treatment of the diseases of children in which the functions of the skin are depressed. The whole body is rubbed with tepid olive-oil every twelve, six, or four hours, according to the urgency of the case. The child is afterwards wrapped in flannel. The *Gazzetta Medica Ital. Provinc. Venet.* asserts that these inunctions are much more efficacious than the warm bath, because—1. They restore more completely and permanently the functions of the skin. 2. The disadvantage of a reaction is avoided by their use, and the layer of oil protects the surface of the body from direct contact with the atmospheric air. 3. The oil prevents organic combustion, and in this way aids nutrition. 4. The inunction with oil does not produce a depressing, but, on the contrary, an exhilarating, effect. In some cases an improvement in the symptoms has been noticed twenty minutes after the operation, but generally not until from forty-eight to seventy hours.

SANTONATE OF SODA.—Dr. Theodore Krauss has found (*Journal für Kinderkrankheiten*) santonate of soda preferable to santonin as an anthelmintic.

A FEMALE CATHETER RETAINED IN THE URETHRA OF A MAN.—M. Verneuil (*Bulletin Gén. de Thérapeutique*, September 15) reports the case of a man whose urine a physician attempted to draw off by means of a female catheter. In consequence of a sudden movement on the part of the patient, the physician relaxed his hold of the catheter, which then slipped into the urethra. M. Verneuil, failing in his efforts to withdraw the instrument through the meatus, removed it by means of an incision in the perineum.

M. Malgaigne has stated that the length of the male urethra is from fourteen to sixteen centimetres (about five inches); but these figures are the results of his investigation on dead bodies, and M. Verneuil thinks that he has not taken sufficiently into consideration certain conditions which may be presented in disease. For instance: 1. Hypertrophy of the

LIBRARY OF THE 99

prostate. 2. The semi-erection which is often met with in patients suffering from retention of urine. 3. An elevation of the bladder, which is produced by a mechanism analogous to that which causes the gravid uterus to rise higher up in the pelvis.

THE BLOOD IN CHYLURIA.—Prof. Hoppe-Seyler (*Medical Times and Gazette*, September 30, 1871; from *Med.-chem. Unters.*, 1871, p. 551) has recently been fortunate enough to obtain and analyze, simultaneously, specimens of the urine and blood of a female patient of the late Prof. Niemeyer's, suffering from chyluria, or chylous urine.

The urine had a milky-white appearance, and contained 7.2 parts per 1000 of fat. The blood yielded 41.3 per cent. of serum of a yellowish color, barely turbid, and not in the least milky. Indeed, there was perfect coagulation of the blood, and the serum was not of the same fatty nature as the urine.

The analytical results exhibit a smaller proportion of albuminoids than is usual. This, Hoppe-Seyler suggests, may be owing to loss through the urine, to dilution with lymph in consequence of the manner in which the blood was drawn (by cupping), or to both these causes. The serum contained a high percentage of fat, while the corpuscles did not appear to contain fat in larger proportion than normal corpuscles; nor were the red blood-corpuscles and the coloring-matter of the blood (hæmoglobin) diminished. Since the whole blood contained 1.7 per 1000 fat, the serum 35.9 per 1000, and the urine 7.2 per 1000, Hoppe-Seyler thinks it is evident that the transudation is not the sole source of fat in the urine, but that a certain amount of the transuded fluid, deprived of or poorer in fat, passes back either into the lymph or into the blood-vessels. The editor of the *Times and Gazette* suggests a "third but less probable alternative,—that fat is actually formed in the kidneys."

MISCELLANY.

THE REPUBLIC OF LETTERS.—The members of the medical profession in France seem to have a very bitter feeling towards their German confrères. At a recent meeting of the Medical Society of the Department of the Seine, a committee was appointed to investigate the various charges made against the German surgeons during the recent war. This was done in order that the members may vote understandingly upon a motion which affects the German members of the Society. The *Union Médicale* of October 17, while expressing the hope that the charges may be disproved, says, "It would certainly be agreeable to learn that the German universities and medical societies had protested against the barbarous war which has been waged against us,—the bombardment of our hospitals, the expulsion by force of the unhappy inmates of our asylums and infirmaries, the burning of our cities, and the contempt of things and men protected by the Geneva cross and banner." The German surgeons are accused of pillaging libraries, museums, and ambulances, and of exactions practised upon and of bad treatment of the sick,—of all acts, in fine, which would tarnish German medicine forever. In conclusion, the editor says, "On these conditions alone can French physicians—the compatriots of the pure and humane glories of military medicine—the compatriots of Ambrose Paré, of Larrey, of Desgenettes, of Percy—say to the surgeons of Germany, 'You have not dishonored either science, humanity, or the profession. You are yet our confrères. Welcome to our hospitable hearths, and resume your places in our scientific societies.' If not, no."

It will be recollected that Professor Virchow has lately published in his *Archives* a paper with the title "After the War," in which he seeks to allay the remaining bitterness engendered by the Franco-German war, and to obtain for France, in the minds of his countrymen, a due recognition of her many and great merits. The *British Medical Journal* of October 21 says that his friendly offices receive little encouragement from one side at least, and in circumstances, too, where nationality might well be forgotten. He lately found himself at Bologna, representing German science at the International Conference for Archæology, on which subject he is an authority. He there met certain brother savants from France whose acquaintance he had made at previous meetings. The professor, it is said, coming up to them at the opening meeting, held out his hand to greet them, but the French men of science turned away with a decisive "Jamais!"

THE ANATOMY OF A SPIRITUALIST.—Mr. Home, the notorious spiritualist, must be somewhat oddly put together; for Lord Lindsay—a respectable nobleman, we believe—swears that he saw him in a spiritual trance, *elongated seven inches;* he measured him against the wall, and marked the place. Lord Lindsay explains this by stating that "the tip of the hip-bone and the short ribs separate;" in Home they are unusually close together. There was no separation of the vertebræ of the spine. The same witness also most positively swore to "levitation,"—Mr. Home floating out of one window and in at another.

Lord Lindsay, however, we learn from the *British Medical Journal*, admits "that he was at one time the subject of a singular optical delusion. He used to see a spectral black dog glide along. He often went up to it, and sometimes passed through it. He was then overworked, and is not now troubled with the black dog." In answer to a question whether Mr. Home's clothes were elongated as well as his body, a gentleman present said a "space was visible between the waistcoat and the trousers."

WHAT BECOMES OF ALL THE CHLORAL?—In a private letter received by Dr. Geo. Harley from Baron Liebig (*Lancet*, October 21), the distinguished chemist makes, among other remarks upon the hydrate of chloral, the following: "I spoke yesterday to a chemical manufacturer, who told me that he makes weekly half a ton of the hydrate of chloral, and that it is used in such enormous quantities in Germany and England that it is impossible to believe that its employment is limited to the sphere of medicine alone. It must be used for other purposes. Some affirm that it finds its way into our beer."

The London *Spectator*, in commenting upon this statement, says there is a much simpler explanation, and asserts that taking chloral is the new and popular vice, particularly among women, and is doing as much harm as alcohol, ether, and other stimulants. Crystallized chloral, it is stated, is kept in thousands of dressing-cases.

THE number of deaths from smallpox in Philadelphia during the weeks ending November 11, 18, and 25 were respectively 101, 133, and 153, 247 of which were of minors.

DEATH FROM SWALLOWING SHOT.—By the advice of an old woman, a man in New York recently took, to relieve constipation, from which he was suffering, half a pound of shot. This shot seems to have given rise to fatal obstruction of the bowels, from which he died.

SMALLPOX AND VACCINATION.—Mr. Waller Lewis, Medical Officer in Chief of the General Post-Office in London,

writes to the *British Medical Journal* that one of the letter-carriers has two children, aged respectively nine and five, both of whom at the time of writing were down with small-pox. Not only were these children successfully vaccinated in infancy, but both have had a previous attack of the disease.

SOCRATES' LAST WORDS.—"Crito! I owe a cock to Æsculapius: will you remember to pay the debt?" were the last words of the dying Socrates. Only a great and a truly good man could think of his doctor's bill at such a time.

CONDURANGO IN ENGLAND.—It appears that our government some time ago forwarded a quantity of the condurango plant to the government of England, in order that its alleged influence over cancer might be tested. A Mr. Davidson, the house surgeon of the Middlesex Hospital, to which some of the drug was forwarded, reports in the *Lancet* that "the results plainly show that condurango is as futile as any of the cancer-cures which have preceded it. It was used in four cases: 1. In an ulcerated epithelioma of the roof of the mouth. 2. In primary cancer of the penis, and secondary injection of the lymphatic glands of both groins. 3. In an ulcerated epithelioma of the scrotum. 4. In an ulcerated scirrhus of the female breast. In all these cases the condurango had positively no effect upon the progress of the disease."

NIEMEYER'S SUCCESSOR.—It is said that Prof. Liebermeister, of Zurich, has been appointed to succeed the late Prof. Niemeyer.

PRESERVING VACCINE VIRUS.—Dr. D. B. Hillis (*The American Journal of Dental Science;* from *The Pharmacist*) recommends the preservation of vaccine virus between layers of dental red rubber, and says that for several years past he has used no new matter, but has, for the sake of experiment, drawn from the stock originally put up as described. He has always found it effective without paying any regard to temperature. A short time ago he successfully vaccinated a patient from a crust which had been lying about his office twenty-seven months.

MEDICAL STUDENTS ABROAD.—The following is given by the *British Medical Journal* as the number of new entrées and total number of students registered at the London Hospitals:

	New entrées.	Total students.
1. University College	88	271
2. Guy's Hospital	86	328
3. St. Bartholomew's Hospital	81	255
4. St. Thomas' "	58	145
5. King's College	43	121
6. London Hospital	29	99
7. St. George's Hospital	22	85
8. St. Mary's "	21	61
9. Middlesex "	19	40
10. Charing-Cross "	11	40
11. Westminster "	10	23
Total	468	1468

IN Vienna during the winter semester of the academical year 1870–71 there were 1653 students of medicine, and during the past summer semester there were 1460.

We have as yet seen no announcement of the number of students in Vienna during the present winter,—the registration is, perhaps, not yet complete; but the medical faculty is announced (*Wien. Med. Pr.*, October 8) as composed of 133 "kollegien," 19 ordinary and 20 extraordinary professors, and 8 privat-docenten.

STUDENTS AT STRASBOURG.—According to a writer in the *Revue de Thérapeutique* (*Medico-Chirurgical Review* of October 1), there have been under the new (Prussian) Faculty at the University of Strasbourg 11 examinations for degrees in the scholastic year 1870–71, against 1014 in the scholastic year 1869–70.

SHARP COMPETITION.—We noticed a few days since, in looking over a medical journal published in 1846, that in that year, on the occasion of a vacancy in the Chair of Obstetrics in the Transylvania University, at Lexington, Ky., there were *forty-nine* candidates for the position, among whom were represented *seventeen* different States.

MORTALITY OF PHILADELPHIA.—The following reports are condensed from the records at the Health Office:

	For the week ending Nov. 11.	Nov. 18
Consumption	39	30
Other Diseases of Respiratory Organs	32	30
Diseases of Organs of Circulation	12	13
Diseases of Brain and Nervous System	39	44
Diseases of the Digestive Organs	17	24
Diseases of the Genito-Urinary Organs	10	7
Zymotic Diseases	127	148
Cancer	12	5
Casualties	7	7
Debility	36	29
Intemperance	0	2
Murder	1	1
Old Age	10	14
Scrofula	1	0
Stillborn	15	31
Suicide	0	2
Tetanus	1	2
Tumors	2	0
Unclassifiable	10	16
Unknown	1	5
Totals	372	410
Adults	171	183
Minors	201	227

OFFICIAL LIST

OF CHANGES OF STATIONS AND DUTIES OF OFFICERS OF THE MEDICAL DEPARTMENT U.S. ARMY, FROM NOVEMBER 5, 1871, TO NOVEMBER 18, 1871, INCLUSIVE.

PETERS, DE WITT C., SURGEON.—By S. O. 431, War Department, A. G. O., November 4, 1871, leave of absence extended sixty days.

FRYER, B. E., ASSISTANT-SURGEON.—By S. O. 87, Military Division of the Missouri, November 9, 1871, leave of absence extended thirty days.

MCCLELLAN, E., ASSISTANT-SURGEON.—By S. O. 440, War Department, A. G. O., November 10, 1871, to report in person to the Commanding General Department of the South for assignment to duty.

CALDWELL, D. G., ASSISTANT-SURGEON.—By S. O. 440, War Department, A. G. O., November 10, 1871, leave of absence extended sixty days.

HOFF, A. H., ASSISTANT-SURGEON.—By S. O. 431, c. s., War Department, A. G. O., relieved from duty in Department of California, to proceed to New York City, and thence to report to the Surgeon-General.

MOFFATT, P., ASSISTANT-SURGEON.—By S. O. 431, c. s., War Department, A. G. O., relieved from duty in Department of the Columbia, to proceed to New York City, and thence to report to the Surgeon-General.